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**Selected Articles from
Soviet Economics Journals in English Translation**

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Central Statistical Administration of the USSR Council of Ministers: Results of Fulfillment of the State Plan of Development of the National Economy of the USSR in the First Half of 1961 (Pravda, July 21, 1961)

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PROBLEMS OF ECONOMICS

Selected Articles from Soviet Economics

Journals in English Translation

PROBLEMS OF ECONOMICS is a complete, literal translation, without editorial comment, of articles selected from the following Soviet publications:

VESTNIK LENINGRADSKOGO UNIVERSITETA, SERIIA EKONOMIKI –
JOURNAL OF LENINGRAD UNIVERSITY, ECONOMIC SERIES
VESTNIK MOSKOVSKOGO UNIVERSITETA, SERIIA EKONOMIKI –
JOURNAL OF MOSCOW UNIVERSITY, ECONOMIC SERIES
VESTNIK STATISTIKI – JOURNAL OF STATISTICS
VNESHNIAIA TORGOVLIA – FOREIGN TRADE
VOPROSY EKONOMIKI – PROBLEMS OF ECONOMICS
MIROVAIA EKONOMIKA I MEZHDUNARODNYE OTNOSHENIIA –
WORLD ECONOMY AND INTERNATIONAL RELATIONS
NAUCHNYE DOKLADY VYSSHEI SHKOLY – EKONOMICHTESKIE
NAUKI – SCIENTIFIC PAPERS OF HIGHER EDUCATIONAL
INSTITUTIONS, ECONOMIC SCIENCES
PLANOVOE KHOZIAISTVO – PLANNED ECONOMY
EKONOMICHTESKAIA GAZETA – ECONOMIC GAZETTE
SOTSIALISTICHESKII TRUD – SOCIALIST LABOR

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PRICE AND VALUE THEORY

Voprosy Ekonomiki, No. 12, 1960

NEMCHINOV:

Value and Price Under Socialism

Commodity and Value. The social division of labor which began in dim antiquity proceeded in different forms and different degrees of intensity at the stages of social development. A further development and extension of this process occurs under socialism. But here it is no longer one-sided. Money no longer serves to enslave man. In step with the development and also because of the rapid growth of the productive forces and of social requirements, socialist society becomes an increasingly complex economic system.

The economic development of the Soviet Union shows that for the time being, at least until there is complete abundance, direct commodity exchange is economically inappropriate. In fact, some features of the natural economy which arose in the past are steadily falling out of use (witness the abolition of deliveries in kind, payments in kind for the services of machine-and-tractor stations, the substitution of money for payments in kind to collective farmers, etc.). Concurrently, such economic categories as price, money, value, cost, commodity and accounting are taking on added importance. It is more and more evident that commodity production and money will survive as social necessities through the transition to communism. What is more, it is quite evident that even under communism it will be necessary to balance expenditures and results in production, consumption and geographical units. It will be impossible to manage the highly complicated communist economy without such balances and without appropriate social evaluations. Comprehensive automation, electronic computers and brains, the use of the latest methods of mathematics in studying and analyzing economic phenomena, will ensure the subsequent conversion of money into a system of social bills, and the system of prices into a system of social standards of evaluation (planometry). [planometriia — translator.]

Under socialism the basic economic categories are substantially and fundamentally modified. Money has ceased to be the price of labor. They have become a planned share which the working people derive from the social product and the national

income (in accordance with the socialist principle of distribution according to work). Money and commodities are no longer means of appropriating the surplus product, and are not transformed into capital. The market price has turned into a planned price, determined by the national economic plan rather than the market. Yet the socialist economy remains a money and commodity economy, though of a special kind.

Marxist political economy differentiates between the production of products and the production of commodities. At a certain stage of social development and social division of labor, workers employed in the sphere of material production begin to produce products "not as immediate means of subsistence for the producers themselves, but as commodities, as products which become use values solely through their transformation into exchange values (money), by their alienation." "These products are commodities, or use values which have an exchange-value that is to be realized, to be converted into money, only insofar as other commodities form an equivalent for them." (1)

Lenin referred to commodity production as production in which the product "can reach the consumer and give the producer the right to receive another social product only after assuming the form of money, i.e., after undergoing a preliminary social evaluation, both qualitatively and quantitatively." (2)

Under socialism, not only labor and land, but all buildings and structures in public possession drop out of commodity circulation. The construction of state factories, railways and various industrial and service buildings is no longer commodity production. Soviet civil and state law provides that these products of labor are transferred free of charge from one user to another, without involving the circulation of money, with the transfer involving removal from the account of one user and addition to that of another. The principle of non-cash settlement applies to the circulation of equipment and other means of production within the state sector. The means of production concerned cannot be sold

to any purchaser, as occurs in a capitalist economy. Material values that are part of the non-distributable assets of collective farms also have a specific form of circulation. They may be sold, but the money or other material values obtained from the sale are added to the non-distributable assets. Non-distributable assets as such are, therefore, not alienable. Factories and building sites are supplied with equipment and materials in accordance with the so-called system of planned allocations and agreements.

The above features of commodity production and circulation in the Soviet Union are so important and far-reaching that they predetermine the distinctive nature of socialist commodity production, which is even now very much different from capitalist commodity production. These features became evident in the very first years of Soviet power. In explaining the importance of commodity exchanges between town and country, Lenin wrote: "The state's product -- the product of a socialist factory -- exchanged for foodstuffs with the peasant, is not a commodity in the political-economic sense; in any case it is not only a commodity, no longer a commodity, it ceases to be a commodity." (3)

The pre-revolutionary economy had no commodities of this special kind. On the other hand, Soviet economic practice also deals with products that are not products in the former political-economic sense of the word. Lenin pointed out that commodities "turn not into 'products,' but into something else. Etwa (approximately -- V. N.) into a product consumed socially without passing through the market." (4) These highly important peculiarities of commodity production do not, however, furnish any grounds for denying the existence of commodity production in the Soviet Union, as is done by I. Malyshev (5) and V. Sobol. (6)

We know, for example, that commodity-money relations based on the principle of economic accounting occupy a highly important place in the Soviet economy. Each enterprise has its own profit and loss account. Economic accounting, applied as a socialist method of economic management, consists precisely in the fact that each enterprise balances its expenditures with the results of its operations and is able not only to cover its outlays, but also to accumulate. The planned price is fixed so as to cover the socially necessary production expenditures and to ensure the desired profitability with the objective of further developing each branch to the desired extent.

Budget subsidies in the sphere of material production are not a necessary feature of the socialist economy, although there is this possibility, whenever necessary, of continuing to operate an

enterprise and even a branch at a loss for as long as it is desirable. But the ideal is for each production unit of the socialist society to operate without losses. In recording aggregate profits and losses the socialist society must also record individual profits and losses in all its units of production, and is vitally concerned about eliminating losses as quickly as possible in the various branches and enterprises.

However, under socialism the concept of equivalence undergoes substantial change, for there is no need to attach all elements of the value to the account of individual enterprises. While production cost as an element of value is refunded to the enterprise, there is absolutely no need to refund to it the entire value of the surplus product. Yet the share of the surplus product refunded to the enterprise, must ensure its further development out of its own resources derived from profitable operation.

The existence of individual profit-and-loss accounts and of cost accounting relations between enterprises, the fact that the product reaches the consumer as an exchange value (money), the economic individuality of enterprises and their independence -- all this testifies to the existence of commodity production in the Soviet Union. It follows that Soviet economic practice refutes the claims made by I. Malyshev and V. Sobol to the effect that commodity production is allegedly incompatible with planning. On the contrary, it indicates that a planned economy makes excellent use of value and money to control social production.

Value is a social property only of a product of labor which is converted into a commodity. There is no value outside of commodities. The commodity is a unity of use value and exchange value, and products of labor acquire the nature of value only as commodities. Marx pointed out that "it is only through exchange that products of labor acquire the socially uniform status of value, distinct from their sensorily different use values." (7)

Determination of Value. Speaking of the magnitude of value, the founders of Marxism-Leninism always implied socially necessary labor time. "Exchange values, all commodities, are but definite quantities of materialized labor time." (8)

Marx differentiated between exchange, market and converted forms of value. Under the capitalist modification of commodities the converted form of value operates in the form of prices of production. In simple commodity economy it is to be observed in its primary form -- as exchange value. Under communism, when it will no longer be necessary to gauge labor outlays indirectly as exchange relations between commodities, exchange value will disappear together with commodities. As a result

ial evaluations of a new type will appear. Marx stated out that "after the abolition of the capitalist mode of production, but with social production remaining, the determination of value continues to take precedence (*vorherrschend*) in the sense that the regulation of labor time and the distribution of social labor among the various production groups, and ultimately the bookkeeping encompassing all this, comes more essential than ever." (9)

As we know, all wealth, all accumulated material means and resources are created by the labor of the members of society through the expenditure of labor time. And in the highest stage of social development, under communism, expenditures of labor time continue as the basis for the social evaluation necessary to control social production and distribution. The "saving of time and the planned distribution of labor time among the various branches of production remains the prime economic law in collective production as well. It even becomes a law to a greater degree." (10)

The socially necessary expenditure of labor time is of decisive importance in determining value, but must not be simply identified with the actual average expenditure of labor time. It would also be wrong to make labor consumed in producing objects of consumption and objects of labor the only economic criterion under communism of the actual amount of labor time expended. In determining the magnitude of value we do not deal simply with expenditures of labor time, but with the social evaluation of these expenditures. This is why it is not the average actual labor expenditures, but the socially necessary expenditures that are important.

The determination of value and the saving of labor is inseparably bound up with the determination of the optimum expenditures of labor time in the national economy as a whole under given concrete conditions of social production. Consequently, in determining the socially necessary expenditures of labor in seeking to ensure minimum losses of labor, at a given level of development of the social productive forces and the level of social requirements closely connected with it should always be taken into account. The socially necessary expenditure of labor time required to produce all the material wealth needed by society may only be determined on the basis of prevailing concrete conditions for the allocation of labor, the available productive capacities and natural resources, the given structure of society's requirements and the purchasing power of the population, as well as the existing level of technology and the production techniques applied by society.

The determination of socially necessary expenditures of labor time calls for a determination of the

minimum outlays of labor required to produce the maximum output (physical volume) in any given concrete social conditions. The complexity of this task makes some economists think that it is insoluble and, hence, that value is impossible to determine. Others think that value may only be determined approximately and indirectly through prices. They think that products of labor may only be evaluated according to their value, while the latter may be determined only by reliance on prices. They think that it is impossible to determine value directly through labor time. (11) They hold that unlike concrete labor, abstract labor cannot be measured directly. These economists claim that value -- as a social relation -- cannot be measured directly because it "counts itself" in the process of social production and distribution, and may only be measured indirectly, through prices, by means of money.

One of the advocates of this point of view, I. Malyshov, considers price to be a direct measure of social labor. (12) He tries to prove that it is possible to accurately measure "social labor through price." This position is incorrect in principle. In trying to determine value through prices, we deprive ourselves of the possibility of determining the objective basis of prices -- value. Prices diverge from this basis owing to the operation of other social laws (e.g., the law of supply and demand). However, an objective basis for prices may be established only by knowing the amount of labor time socially necessary to manufacture a product.

The advocates of the above erroneous conception think that value as a social criterion should be determined by each individual enterprise. But in fact value cannot be determined directly and immediately through labor time at an individual enterprise. Social value is not a simple sum of individual values. There must be a social recognition of the outlays of labor actually expended. Consequently, socially necessary outlays of labor should be determined by taking account not only of the outlays of labor but also of its results. Only those outlays are regarded as socially necessary which correspond to the requirements of society under given objective conditions of production (production techniques, available productive resources and productive capacities, labor reserves).

Thus, even if each enterprise knows both its actual expenditures of labor time and the actual expenditures of labor time embodied in the objects and means of labor used by it in the process of production and received from other enterprises, it does no more than register the actual total expenditures of labor time. However, it cannot determine to what extent these expenditures correspond to the socially necessary expenditures of labor. Yet each

enterprise should know the social evaluation of all the objects and means of labor which it expends and uses in units of socially necessary expenditures of labor time. What is more, each enterprise should compare its outlays of labor with the socially necessary outlays of labor. But to do so, it is not enough for an enterprise to know its costs of production in labor time rather than in terms of money.

Consequently, socially necessary expenditures of labor in labor time may be determined only through a consistent application of the national economic standpoint rather than the standpoint of an individual enterprise. In a planned economy this task may readily be solved by using modern mathematical methods and electronic computers. In drawing up national economic plans the socialist society not only can, but must, establish economic evaluations in the form of planned prices based on a scientific determination of value as socially necessary expenditures of labor time.

I. Malyshev approached this problem from the other end, suggesting that labor expenditures should be calculated through prices. He suggested determining the socially necessary expenditures of labor by dividing prices by a certain measure equal to the relation of the national income in current prices (numerator) to the labor time actually expended by workers in the sphere of material production (denominator). But why this value is needed, one cannot say. I. Malyshev and his followers make the mistake of confusing the price form with its substance — value.

Marxism-Leninism postulates that price is based on value, that it is a money expression of value. We must therefore look for a direct way of determining the value of commodities as socially necessary expenditures of labor time. As we have noted above, a planned economy based on modern science and technology is quite capable of solving this problem.

The solution, it seems to us, should rest on a national economic plan — taken as a starting point — in the form of a planned balance of production and distribution. This balance should single out 150 to 200 distinct branches of the economy. The leading 75 to 100 should be presented as detailed concrete branches, and the rest as summary groups. The detailed group of commodities should be classified according to the principal technological modes of production (e.g., coal mined underground and the open-cast way in the most important basins, electric power by hydrostations and thermal stations — district, rural, etc.). The detailed group of branches should cover primarily those branches which comprise the key material part of the national income, as well as the key raw materials, fuels, and power resources — particularly those employed in

the production of all the principal products (such as electric power and fuel).

The matrix of technological coefficients relating to the consumption of raw materials, fuels, power materials, etc., per unit of output (in physical and value terms) is the most important section of the planned balance of production and distribution. In classifying the various technological methods of production in the balance (with their consumption coefficients), we can select the optimum planned balance from among the primary variants in accordance with plan directives and within the bounds of available resources (the limits of capital investment, available production plant and resources in short supply).

Selection of the optimum plan is based on the solution of a mathematical problem which establishes, say, the minimum expenditure of labor time required to produce a fixed physical set of products meeting the requirements of society to the maximum under given conditions. Given the actual and planned outlays of labor time per unit of output, and the matrix of consumption coefficients of the optimum balance of production and distribution, the total optimum outlays of labor time per unit of output may be determined by means of electronic computers.

The calculation of total outlays is based on V. Dmitriev's (13) formula: $X_i = \sum a_{ij} X_j + t_i$, where X_i represents total labor outlays, X_j the current outlays of labor on products consumed, a_{ij} the technological coefficients, and t_i the current labor outlays on the production of i , the product. In this equation the total outlays are simultaneously iterated with the balanced social production and consumption, which is especially important. (14)

Given the total outlays of labor time in the optimum variant of the national economic plan for the key items of production, determining the bulk (say, 90 to 95%) of the material structure of the national income, the latter (resources for consumption and accumulation) may be evaluated not only in current prices (in the national currency) but also in value (units of socially necessary outlays of labor time). By dividing the national income (in units of national currency) by the evaluation of the material structure of the national income in units of socially necessary outlays of labor time, we get the money expression of value. By multiplying the total optimum outlays of labor time in the various branches of production (which indeed constitute the socially necessary outlays of labor when given per unit of production) by the money expression of value we get the money expression of value for all the key items of production. The result is the exchange value, which cannot be determined unless we

ow the outlays of socially necessary labor time. The above measure of value is fundamentally distinct from the magnitude obtained by I. Malyshev. This is not only because Malyshev divides the national income by the actual, rather than the socially necessary outlays of labor. The main thing is that he cannot obtain the value of the individual items of production, because he does not know the socially necessary outlays of labor time. If he were to divide the price of a unit of commodity by a measure obtained by his method, he would not obtain the socially necessary outlays of labor, nor value, but a measure similar to an index which is popular in the United States, one which indicates how many minutes one has to work to buy a certain amount of commodities (say, one kilogram of sugar, bread, meat or so-and-so-many meters of different quality fabrics). This index, however, has nothing in common with value as the scientific basis of price.

Converted Form of Value. In a simple commodity economy, where isolated markets are dominant, technology is primitive and the division of labor modest, individual value diverges only negligibly from social value. As a rule, the place of origin of the surplus product is the same in these circumstances as the place of its realization (including payment of feudal duties). In this case both the producer and the consumer know the quantity of labor necessary to produce the commodity concerned. When the social division of labor is extended and a national market appears, when the capitalist mode of production advances and the means of production are augmented, a distinct gap appears between social value and individual value. Individual value is noticeably affected by numerous individual differences in the application of labor. The place of realization of surplus value differs, as a rule, from the place of origin of surplus value, for commodities are no longer exchanged as products of labor, but as products of capital. The elements of value (transferred value, payment of labor, surplus value) break apart. Production costs, wages, profits and interest appear and become separated in the economic turnover of value. These elements of value begin to exist independently, yet do not emerge from the network of social value and newly created value (e.g., production costs, wages, profits and rent cannot exceed the sum of the total social value and the newly created value in the national economy as a whole). Yet in appearance they seem to be independent of value.

In the new circumstances the functioning of ordinary commodities is replaced by what Engels called capitalistically modified commodities, and value is transformed into a converted form of value — the price of production. The latter appears on the basis

of competition between capitals because of the fact that all surplus value is redistributed (according to the law of the average rate of profit) among capitalists in proportion to the fixed and circulating capital applied by them in production. Marx pointed out that "the exchange of commodities at their values, or approximately at their values, thus requires a much lower stage than their exchange at their prices of production, which requires a certain higher level of capitalist development." (15) The law of value, however, continues to govern the movement of prices of production completely.

Is there a converted form of value in the case of the socialist modification of commodities, and is this converted from the price of production? This fundamental question of price formation remains an object of keen controversy in Soviet economic literature. Some economists (Academician S. G. Strumilin, Ia. A. Kronrod, A. E. Probst and others) deny in principle the possibility and necessity of any converted form of value under socialism. Others (such as M. Sakov) assume that only utopian socialism could conceive the essence of socialism in an ideal operation of the law of value in the sense of a complete equivalence between prices and the unconverted form of value. A number of economists (Z. Atlas, L. Vaag, M. Kolganov, and others) contend that under socialism only prices of production express the socially necessary outlays of labor, and in so doing most of them simply identify the price of production and value. The practice of price planning, however, remains in the hands of economists (L. Maizenberg, D. Kondrashov, etc.) who assume that there is a specific converted form of value in the Soviet economy, corresponding to the average costs in a branch of production plus the rate of profitability (in per cent of the cost). In so doing, they include only a minimum portion of the surplus product (3 to 5% of the cost) in the rate of profitability, acting on the belief that the bulk of it should be realized in the form of a turnover tax in the retail price. This group of economists believes that the greater part of the value of the surplus product should not be included in the intra-production turnover (the delivery prices of industrial or agricultural enterprises). This yields a two-scale system of prices (different scales of prices for wholesale and delivery prices of industrial and agricultural enterprises, and for consumer retail prices).

Some economists (such as P. S. Mstislavskii and A. Ia. Boiarskii) think that production cost can express social value without any additions. This opinion is unacceptable in principle and profoundly mistaken. Production cost is in substance no more than one of the detached elements of value. It does

not fully reflect the socially necessary outlays of labor.

In modern conditions it is increasingly important from the economic standpoint to plan profitably. The first practical question to arise is: how is the planned standard of profitability to be established.

There are two main ways of determining the standard of profitability — in per cent of production cost and in per cent of the fixed and circulating assets. In both cases the value of the aggregate surplus product is used as the numerator.

The converted form of value appears because the elements which compose production cost and the value of the surplus product become detached. This is why the rate of profitability in per cent of production cost is historically primary as compared to the rate of profitability in per cent of the fixed and circulating assets. However, the first index is less adequate than the second because only the latter enables us to apply the rate of profitability to each individual enterprise, while the former does not. The former causes economic blunders when applied to individual enterprises. The higher the cost of their output, the less profitable are the enterprises. Under this method of planning profitability the branch price rises proportionally to the rates of economic development of the given branch, because the burden of capital investment in it is distributed among the enterprises. This is absolutely wrong, especially in the case of newly-emerging branches and enterprises. Furthermore, in an environment of technical progress, when initial capital investments and fixed assets assume increasing importance, the cost of production alone ceases to reflect profitability to a sufficient degree. It is then also necessary to know the capital investments per unit of output. But production costs and capital investments per unit of output, meanwhile, often conflict — and especially so at a time of rapid technical progress.

It is by no means a matter of indifference to the socialist mode of economy what capital investments per unit of output are required to lower the production cost. When planning the profitability of an enterprise it is highly important to know what fixed and circulating assets have been allocated to it. On these grounds, some economists — protagonists of prices of production — rightly seek to determine profitability in per cent of the fixed and circulating assets, and not in relation to production costs. But they are mistaken when they assume that the problem of profitability of a socialist enterprise coincides with the problem of the economic effectiveness of capital investments. This is wrong. In our circumstances two indexes — the standard economic effectiveness of fixed and circulating assets, and differential rent — must be used in planning profitability.

Under the capitalist mode of production one rate of profitability arises (in per cent of the fixed and circulating capital) owing to competition between capitals. It may be used for two reasons: 1) land, forest land, water resources and mineral resources assume an irrational form of value; the rent derived from them is capitalized and made part of fixed capital; 2) all the elements of value are attached to individual enterprises and each individual division of production (a mine, a forest estate, a land plot, an irrigation or amelioration project, etc.) is refunded its share of the surplus product in accordance with the capital applied.

In a socialist economy both these reasons are absent. To begin with, land and mineral resources drop out of commodity circulation entirely. So do buildings and structures, which are state property and are turned over to the various economic bodies free of charge, by transfer from one balance sheet to another. For this reason some economists (16) assume that the economic category known as differential rent disappears under socialism and only differential incomes remain. This is an unacceptable point of view, because under socialism favorable natural conditions in the application of labor make it possible — within the framework of a single branch of production — to produce a greater mass of surplus product than that produced under the average conditions. The second condition necessary to justify prices of production economically (with a single standard of profitability based on fixed and circulating capital) is also absent in the Soviet economy. Only a small share of the value of the surplus product is credited to individual socialist enterprises. The development of each branch and each enterprise is not financed solely out of the resources of the enterprise or branch concerned, but chiefly out of the incomes of all of society, usually through the state budget.

There is, therefore, no room for prices of production in the socialist economy, and all the more so since the law of the average rate of profit, which redistributes the aggregate surplus value proportionally to the fixed and circulating capital, does not operate in it. This does not mean, however, that there is no converted form of value at all in our economy. The socialist economy is by nature complex and large in scale. In it the social division of labor and technical progress have advanced greatly. For this reason, it also has a converted form of value which assumes a very complex and differentiated character. Its role is performed by the national economic costs of production, which only in appearance are reminiscent of prices of production.

In addition to production costs this economic category includes a number of social standards of

basis of which the profitability of a branch and enterprise is planned. These standards break down into two main categories: standards of economic effectiveness of the utilization of fixed and circulating assets, and standards of economically effective utilization of natural resources. Both these categories of standards are meant to ensure a rational accumulation of the surplus product, bringing the place of its accumulation closer to the place where it is produced. Concurrently, these standards must register the process of redistribution of the surplus product, facilitating the concentration of the bulk of the surplus product in the hands of society, so as to facilitate its redistribution among branches and enterprises in accordance with the national economic plan. In this redistribution we can use not only the state budget, but the various public funds such as, say, the non-distributable assets of collective farms, the turnover tax, etc. It may be recalled that the system of zonal delivery prices is chiefly applicable only in branches which pay a sufficiently large turnover tax. At present, the turnover tax principally accumulates differential rent, while the profits of enterprises partially accumulate a portion which corresponds to the economic effectiveness of the fixed and circulating assets. But the planning of profitability is not sufficiently well organized so far. The role of the enterprise in accumulating the surplus product is still relatively insignificant, while the turnover tax is an imperfect form of accumulating the surplus product. This is due for two reasons: 1) the big gap between the place of origin and the place of realization of the surplus product, and 2) the application of the turnover tax only to a limited range of products. Furthermore — and this is its chief defect — it tends to create a gap between the prices of means of production and the prices of objects of consumption. Finally, the existence of a turnover tax makes the conditions of commodity circulation far more difficult in both the sphere of material supply — where commodities are issued in accordance with predetermined allocations in kind to each enterprise — and in the sphere of state-operated trade in consumer goods.

The above form of accumulating the surplus product was highly important in the past, at the time of collectivization in agriculture and the industrialization of the national economy. Today, on the other hand, the interests of greater profitability of the national economy and the economically effective use of fixed and circulating assets and natural resources require, in our opinion, that profitability be planned taking into account the converted form of value referred to as national economic costs of production, which encompass social standards of the

economic efficiency of the utilization of assets and natural resources.

The over-all economic effect (a single standard of effectiveness of assets multiplied by the mass of assets used in the national economy, and the differential rent) forms the value of the surplus product. The standard of profitability is broken down into a single standard of effectiveness of utilization of assets, and separate differentiated rates of differential land, forest, mining and building rent. For the national economy as a whole the numerator of the coefficient of the economic effectiveness of fixed and circulating assets equals the sum of productive capital investments, the increment of circulating assets and the expenditures of enterprises on retraining and improving their personnel, while the denominator equals the available fixed and circulating assets.

The economic effectiveness of the utilization of resources, in turn, is broken down into differential land, forest-land, mining and building rent. Agricultural products are affected by land rent, timber products by forest rent, the products of the extracting industries by mining rent, and all production by the differential building rent stemming from the use of buildings and structures in various economic conditions. It is possible to determine the standard and actual economic effectiveness of the utilization of resources scientifically, provided modern mathematical methods and electronic computers are used for the purpose.

The national economic costs of production are therefore equal to the average production cost in the various branches plus part of the surplus product determined proportionally to the fixed and circulating assets on the basis of a single planned standard of their utilization, and plus a portion of the surplus product determined on the basis of the planned rates of differential rent.

How can we organize the process of accumulating the surplus product under socialism, where there is no social need any longer to attach in full the elements of the surplus product to the individual enterprises? We must include the planning of profitability on the basis of appropriate planned standards in the system of national economic planning. The financial relationships between the state and the state-operated enterprises could, for example, provide for the payment into the state budget of certain sums proportional to the fixed assets in accordance with a planned rate of their economic effectiveness. These sums should be fixed beforehand so that in raising output (i.e., reducing the assets per unit of output) the enterprise concerned could reduce the national economic costs per unit of its output. Enterprises operating in more favorable conditions

should, in addition, transfer to the state a differential building rent for their industrial buildings and structures. In this way enterprises operating in different conditions would be placed on an equal footing with regard to national economic costs.

The payment of differential rent to the state could be organized either in the form of direct payments (fees, for example), or as transfers to the state budget of the difference between the zonal delivery prices of enterprises — the prices of the producers and the single purchase prices of the consumers. In the case of some consumer goods a portion of the surplus product could also be collected in the form of a turnover tax. However, the amount of the turnover tax should be reduced because it is an imperfect form of accumulating the rental part of the surplus product.

As we see, national economic costs of production differ greatly from prices of production. But it is only in the form of costs of production that the socialist society is able to orient its enterprises toward maintaining the level of socially necessary expenditures of labor, while at the same time equalizing the conditions of the application of labor by taking account of assets per worker and of the supply of the labor process with allocated natural resources of established quality.

Some economists object to planning profitability in proportion to the fixed and circulating assets of enterprises, and deny the need and all scientific grounds for it. Yet such planning of profitability is economically justified.

The surplus labor of society is embodied in fixed assets, and the depreciation charges (which go into the fund of material expenditures) are part of transferred value. Their main function is to ensure the simple reproduction of the fixed assets created by society. Expanded reproduction proceeds principally at the expense of surplus labor. The same applies to circulating assets, the expenditure of which is refunded through transferred value and the increment of which is taken care of by surplus labor. It is therefore most desirable to distribute the additional outlays of surplus labor made for the further development of the sphere of material production evenly among the branches and enterprises in proportion to the mass of surplus labor previously materialized in the fixed and circulating assets allocated by society to the corresponding branches and enterprises.

The planned standard coefficient of economic effectiveness of the utilization of fixed and circulating assets is therefore correctly defined as a relation whose numerator includes the planned capital investment (minus depreciation), the accretion of circulating assets and the outlays on training personnel,

while the denominator includes the total value of the fixed productive and circulating assets in the sphere of material production. This relation gives us the minimum obligatory planned rate of profitability (17) of the utilization of fixed and circulating assets to be included in the national economic cost proportionally to the value of the fixed and circulating assets of an enterprise or branch.

The Process of Price Formation. Prices are based on value. The law of value governs the movement of prices in the sense that commodities are exchanged as masses of socially necessary labor time. Single prices for identical commodities show that value is social by nature. However, prices do not always coincide with value. Prices deviate from value principally because of the effect of demand and supply, and coincide with it only when the latter are mutually balanced. Marxist political economy has always opposed the quasi-scientific contention that price is a form lacking value content. The claim that price formation is based solely on the state's price policy rather than on the objective process of the formation of socially necessary outlays of labor is just another variety of this incorrect notion.

But what form of value constitutes the basis for price formation? Each form of value has its own value structure. There are three basic value structures, distinguished according to the manner of distributing surplus labor among branches and enterprises: 1) the value of the surplus product is distributed proportionally to the outlays of living labor; 2) the value of the surplus product is distributed proportionally to the production cost as a detached portion of value; 3) the value of the surplus product is distributed in accordance with the conditions of the application of labor as represented by the fixed and circulating assets available for labor, and by the favorable natural conditions of labor (land fertility, forest and water resources, mineral deposits, etc.). The first structure corresponds to value directly expressed in socially necessary outlays of labor, in which account is taken of coefficients converting labor time into simple labor based on wage relationships. The second and third structures correspond to the converted form of value bound up with the detachment of wages and production costs, and the redistribution of the value of the surplus products. The second structure of value is used widely in price fixing in the Soviet Union. Price formation in Soviet industry is based on average production costs in a given branch at a minimum rate of profitability. Yet the second structure is, in substance, an imperfect form of converted value and has important defects when used for planning the profitability of individual enterprises.

under socialism, with technology making rapid progress and the social division of labor being extended, the separation of points of origin and points of utilization (realization) of the surplus product continues. Capital investments amounting to many millions of rubles become increasingly important in the development of both individual branches and of the national economy as a whole, and the means of production — above all implements of labor and specialized industrial buildings — become more and more important in raising labor productivity. The rates of growth of labor productivity and wages do not always correspond with one another for a number of reasons. The wage funds in the various branches do not always fully reflect the socially necessary product. This is why the converted form of value does not exist under socialism. The primary products of our society have an increasing need for uniform standards which they can apply in combining common national economic interests with the special interests of their enterprise.

The planned price is the most important instrument of this kind, providing that sufficient importance is attached. The planned standard rates of profitability cannot be assigned to each enterprise in the form of a common percentage of their production costs (or of the wage fund). Such a standard rate is economically unsound. Production costs, being in principle an economic category of an individual enterprise, conflict in a certain way with the general criterion of profitability. Production costs and profitability change in opposite directions (the higher the cost, the lower the profit). Furthermore, production costs do not fully register the social outlays on production. They can always be reduced by increasing capital investments, which is one of the forms of social outlays of labor. That is why, in addition to production costs, it is necessary to take account of the capital outlays per unit of output and the assets available at each enterprise.

We know from historical experience that it is economically advantageous to advance labor outlays on technical equipment of production, the production of implements and objects of labor, for these are recouped through subsequent reductions of current outlays of labor and are financially expressed as a reduction of production costs. The planned standard rate of profitability should express this coefficient of the economic yield of preliminary capital outlays of labor (per unit of production). The overall economic effect of capital outlays is equal to this standard rate multiplied by the fixed and circulating assets. This planned standard rate of profitability must be included in the structure of converted value that serves as a basis for planned price formation.

As noted above, planned profitability should cover all outlays on the development of the sphere of material production. However, it would be wrong in principle to charge each given branch separately for the expenditures on its economic development. If this were done, the rapidly developing branches would have higher prices the more rapid were their rates of development, and particularly high prices would prevail in newly-founded industries. This would conflict with the tasks of technical progress. Consequently, there should be one minimum obligatory planned standard rate of profitability for the entire national economy. It should be determined as the relation of outlays made for developing the sphere of material production to the value of the fixed and circulating assets attached to the various branches of production and to enterprises. Then all the expenditures incurred in the economic development of production will be distributed among all branches and enterprises evenly and proportionally to their fixed and circulating assets.

The single planned standard rate of profitability cannot be less than the standard rate which ensures the recoupment of social expenditures incurred on the economic development of the sphere of production. On the other hand, the planned standard rate of profitability cannot be greater than the coefficient of the economic yield of preliminary labor outlays on capital expenditures.

It is within the range between minimum and maximum profitability that we get the differential building rent bound up with the favorable location of enterprises in relation to the other natural and economic conditions of their work (favorable power and raw material conditions, and other factors making for optimum production). Owing to favorable natural conditions other forms of differential rent may appear in various sectors, such as forest and land rent represented by the difference between the fixed consumer's price and the zonal delivery price (plus transport and trade allowances). In some cases we also get a differential rent in mining — for example in using the iron ore of the unique Magnitnaia Mountain (Magnitogorsk Iron and Steel Works), oil produced at some of the oil fields in the Tatar and the Bashkir ASSR and so on.

In Soviet conditions the planning of profitability should take account of the various component elements, that is, it should be based on an analysis of the coefficient of effectiveness of fixed and circulating assets, and the differential building, land, forest and mining rent.

National economic costs of production, therefore, differ from prices of production in that, first, they do not include a single average rate of profit but a series of planned standard rates of profitability (a

single rate of economic effectiveness of fixed and circulating assets, and differentiated standard rates of building, land, forest and mining rent) and, second, they do not require the entire value of the surplus product to be referred to the individual enterprises concerned; they provide for its distribution in a certain proportion between the central state fund and the enterprises.

The converted form of value represented by the national economic costs of production, including the planned profitability rates, should be the basis for planned wholesale prices. Furthermore, when planning retail prices for specific commodities the deviation of price from value, reflecting the effect of demand and supply, should also be considered. Prices in excess of value would, naturally, be desirable for consumer goods for which the effective demand exceeds the supply, and vice versa. Yet the law of supply and demand is not always given adequate consideration, thereby causing supply difficulties. We should also adopt the practice of raising allocations to the enterprise fund for enterprises producing items in short supply and, on the other hand, reduce (or even cancel) these allocations for enterprises producing outmoded or relatively useless commodities.

However, the disparities between price and value should not only be scientifically justified, but should cancel each other out when aggregated. We may recall the Marxist proposition that the sum of prices equals the sum of values. Many mistaken notions have arisen at present about this important Marxist proposition. It should therefore be stressed that the equality of the sum of prices and the sum of values applies to the entire mass of commodities exchangeable between the primary producer and consumer units of society. It applies only to the aggregate of commodities whose exchange involves money. Consequently, the turnover within an enterprise and all sorts of free transfers (obligatory payments, gifts) drop out of the aggregate of commodities and are not to be included in the equality of the sum of prices and the sum of values.

But what about state-owned buildings and installations transferred gratis from the account of one enterprise to that of another, and what about the material supplies transferred, albeit for money, but by written order and solely to enterprises possessing the right to buy the given commodity within limits of its allocation? What about payments in kind for the labor of collective farmers? Experience shows that all these varieties of turnover of material values also drop out of the commodity turnover to which the equality of the sum of prices and the sum of values applies. However, with labor on collective farms being increasingly paid in cash and with state

trading in material supplies developing (sales without allocations), the amount of commodities governed by this equation will expand. This does not mean that all commodities should be valued in accordance with retail prices. In a number of cases the commodities may be valued at wholesale prices, which normally stand in a definite relation to retail prices.

Some economists have the mistaken notion that the value of these commodities governed by the equality of the sum of prices and values should be augmented by the total value of the surplus product not realized in the sphere of procurement and material supply. But this is wrong. When the volume of commodities is narrowed the commodities remaining continue to be exchanged in accordance with the mass of socially necessary labor time embodied in them and registered in all the stages of the production process, including those that proceed outside the commodity turnover. We must therefore agree with those economists (A. Bachurin, M. Bor, S. Turetskii, L. Maizenberg) who hold that consumer goods are exchanged in the Soviet Union at their value and not above it, and reject the contrary point of view held by other economists (Ia. Kronrod, P. Mstislavskii, M. Makarova and, in the past, by myself). Marx pointed out: "At any rate even if a portion of surplus value not expressed in the price of the commodity is lost for the price formation, the sum of average profit plus rent in normal form can never be larger than the total surplus value, although it may be smaller." (18)

The other erroneous notion is that the equality of the sum of prices and the sum of values does not exist under capitalism during crises and industrial booms, (19) and in the Soviet Union during the period between two price reductions. (20) What actually happens in the above cases is that the monetary measure of value or value as such changes, but the equality of the sum of prices and the sum of values remains intact.

The monetary measure of value is equal to the relation of the value of the consumption, accumulation and export funds evaluated in current prices to the value of the same quantity of objects evaluated in units of socially necessary outlays of labor time. Although this measure of value corresponds to the given level of prices, it rises when labor productivity rises and when the national currency falls in value owing to inflation, and, on the other hand, it drops when the effective demand of the population drops sharply due, say, to a crisis. At the same time, a change in the measure of value does not violate, but rather maintains, the equality of the sum of prices and the sum of values for the entire mass of commodities whose exchange involves money.

The measure of value should not be confused with

level of prices. The price level is of merely direct relevance to the equality under examination. The difference between the measure of value and the price level is evident from the one fact alone that the measure of value at each given moment and in each given national system of economy is always the same, while there may be more than one price level. At present, for example, there is a two-level system of prices in the Soviet Union — one price scale for commodities in the consumption fund and the transport fund, and the other — a very different one — for goods included in the material supply fund for the industry and construction. In wartime different price scales appear for consumer goods issued against ration cards, goods sold at commercial prices, goods sold in the market, and goods circulating in the sphere of the material supply of civilian and war production. These different price scales do not cancel out the deviation of prices from value caused by the price scale differences. The cancelling out of the deviation does not occur through the system of prices but through the system of budget allocations (subsidies, donations, budgetary refunding of losses, etc.), and in wartime — through the realization of accumulated national wealth and even through the curtailed reproduction of the branches.

In normal conditions of economic development the multiplicity of price scales has very great disadvantages. Different price scales in the sphere of material supply of enterprises and institutions in the state sector of the national economy give rise to a subsidy system and extend the system of enterprises and branches operating at planned losses. The so-called "diseases of exchange" come to the fore and in some cases we see processes of a natural economy appear.

The two-scale system of prices in the USSR is a specific feature of a socialist economy, but merely a temporary phenomenon. It is, among other things, a result of defective planning in the sphere of price formation. One of the main defects is that the method of determining profitability in per cent of production cost, which is incorrect in principle, has thus far been used as the basis for price planning. Another no less important defect is that current price formation is not yet organically linked to the planning of profitability in the national economy. Cost reductions play a highly important role in raising the profitability of enterprises, but profitability should not be planned in per cent of production cost.

The time to reform planned price formation is now ripe. This should be done in such a way that it covers not only production costs but also planned standard rates of profitability — determined as a single

standard rate of economic effectiveness of the fixed and circulating assets, and differentiated ground, forest, mining and building rent — will become the basis of the planned price. In so doing, the value structure in the form of national economic costs of production should be made the basis of the planned price. The reform does not by any means call for a general increase in the prices of means of production. Prices may be brought closer to value by revising wholesale factory prices with the object of eliminating deficits at enterprises and branches of industry, and by covering in the wholesale prices of the various branches the socially necessary expenditures incurred in the development of all branches of material production. On the other hand, wholesale and retail prices should be brought closer together by lowering retail prices in step with the reduced cost of producing consumer goods.

A reform of the material supply of state enterprises is also necessary. It may be effected by gradually transferring material supply to state trade, that is, instituting sales without allocations. To begin with, we must do away with those elements of a natural economy that exist in the form of atomized natural funds for buying means of material supply. The funds in natural units may, at first, be replaced by a system of funds expressed in value terms, broken down for a small number of key items of material supply. State enterprises should be allowed to buy the material supplies they may require at state-operated wholesale trade centers at any time. The transition from natural to value (greatly consolidated) funds will make it possible to extend the principle of economic accounting to the entire system of material supply.

This reform of material supply should be accompanied by a reform in price formation, so that planned prices will be based on national economic costs of production and the inclusion in national economic planning of a special system of planned standard rates of profitability obligatory for all enterprises. Among other things, these planned standard rates of profitability should provide for the rates of deductions to the centralized state fund and the fund of the enterprise. In the case of grain production the planned standard rates of profitability should also cover deductions for insurance, which would provide for payments in the event of bad harvests (caused by meteorological factors), that is, ensure stable incomes from these crops in accordance with the average yield over a number of years, so that enterprises would have an opportunity to cover the shortage of grain in kind with the price, and thereby guarantee each enterprise not less than three-quarters of its normal average income per hectare.

As these measures are implemented the two-scale system of prices may also be gradually removed. As a result, socialist society will have a powerful lever for controlling the national economy by means of a scientific and flexible system of price planning and a system of value funds for maintaining national economic proportions (deductions to the centralized state fund for nationwide needs, deductions to the fund of the enterprise, to the non-distributable funds of collective farms, to the insurance fund guaranteeing incomes on grain crops, and to the depreciation funds, etc.).

Price Planning. In a capitalist economy prices arise spontaneously in the market, and in a socialist economy they are fixed by the state on the basis of a conscious examination of economic processes unfolding in the national economy. Working out planned prices is a highly complicated and responsible process.

Soviet price planning is based chiefly on a study of production costs in the various branches as reflected in reported and planned calculations for a large range of consumer goods and means of material supply. The practice of price planning in the Soviet Union is described exhaustively enough in essays by L. Maizenberg, Price Formation in the National Economy of the USSR (1953), D. D. Kondrashev, Price Formation in Soviet Industry (1956), S. Ia. Turetskii, Essays on Planned Price Formation in the USSR (1959), and for the People's Democracies by B. Csikos-Nagy's Problems of Price Formation and Price Policy (1960).

However, the present practice of price planning is based on the insufficiently substantiated and theoretically incorrect notion that cost production is the measure of value. The result is that profitability planning is practically ignored. Yet the system of planned prices cannot be a scientifically based one by planning production costs alone, while profitability planning for enterprises is neglected, without any direct and immediate determination of value and, consequently, without proper determination of socially necessary expenditures of labor time. The need to determine value in this way has existed for a long time. Socialist society must know with a sufficient degree of precision how much labor it expends on producing each consumer item and each unit of production. Neither temporary, prolonged nor stable deviations of price from value can be assessed unless value is determined. In view of this we should make a start in determining the social value of the key items of production.

Sometimes the question arises: why is the direct, immediate determination of value necessary? Value is the core of price fluctuations; and it is a core that has to be established first. It is

the aggregate of such cores for the key articles comprising the value skeleton of basic prices that yields the value level of prices. By determining value for the key items of production in order to establish the level of prices, we seek to achieve only the necessary conformity of prices and value, not their complete equivalence. The most important feature of prices is that they deviate from value and fluctuate around it as around their core.

The dynamic system of prices is in equilibrium if prices fluctuate around value, i.e., if they are built on the value level. In that case the necessary general proportionality of the prices of various commodities to the socially necessary outlays of labor expended on their production is ensured. Establishing the general proportionality of the system of prices to the socially necessary outlays of labor time is, indeed, the prime and most important task of the direct and immediate determination of value. Yet another task is performed simultaneously — that of determining the general aggregate value of the surplus product by determining the optimum rate of profitability and the optimum coefficient of over-all economic expansion.

The development of the sphere of material production proceeds in different forms — through the further improvement of existing industries and of enterprises, the building of new enterprises in old branches of production, and the building of entire new industries. There is no reason to exclude from national economic costs the expenditures of surplus labor on the building of new branches and new enterprises in old branches. It is therefore all the more undesirable to place the entire burden of building new industries solely upon the industries in question. It would be more correct to charge expenditures of this sort on the entire sphere of material production. A profitability fund should be created on this basis, divided according to definite proportions between the centralized state fund and the funds of enterprises. The dimensions of this profitability fund should be fixed beforehand in proportion to the fixed and circulating assets of each enterprise, so that the enterprise concerned will have an opportunity — by improving the use of its assets and raising output per unit of assets — to reduce its individual national economic costs. The bulk of the savings under the heading of national economic costs, like the savings under the heading of production costs (relative to planned production costs) should go to the fund of the enterprise.

It may be recalled that capital outlays include outlays on prospecting, which provide for greater stocks of minerals (gas, oil, coal, ferrous ores and non-ferrous ores), outlays on forestry, irrigation, and melioration. At present these outlays

chiefly financed out of the state budget, but in the future they should be financed through the principle of self-support in the sphere of material production. The use of the converted form of value in the sphere of national economic costs, and the corresponding planning of profitability, will make it possible to strengthen the system of economic accounting and to do away with the abnormal situation in which enterprises do not care about the amount of capital investments and the degree of utilization of the natural resources on which society has earlier expended its surplus labor (such as prospecting, melioration and other measures).

It is sometimes assumed that redistribution of the value of the surplus product stemming from the appearance of the converted form of value distorts the distribution of socially necessary outlays of labor. But this is true only in part. Outlays of surplus labor distributed proportionally to the surplus labor embodied in the fixed and circulating assets within each branch of production correspond to the quantity of the surplus product accumulated at enterprises where labor is better equipped, because individual outlays of labor time there for producing an identical object are lower than socially necessary per unit of production).

Enterprises that have more favorable conditions with respect to natural resources will also accumulate more surplus product, because their individual labor outlays per unit of production are below those socially necessary. This is why there will be no displacement of socially necessary labor outlays when redistributing the surplus product within a branch. This contingency is only likely to arise when redistributing the surplus product between branches of industry.

It should also be noted that determining national economic costs with respect to differential rent does not by any means require the state to pay out differential rent to enterprises and then reclaim it in the form of taxes. The whole thing may be organized differently. For example, a sales or procurement agency might enter part of the differential rent directly under the heading of state income, and pay the zonal delivery price to the enterprise (mine or farm) without including the average differential rent for the given zone or group of enterprises.

Mathematical methods of economic calculation (like the vector-matrix method) enable us to establish optimum rates of profitability in the form of optimal rates and, in particular, to establish the marginal rent as the difference between the differential profitability of assets and the single minimum planned profitability covering capital expenditures for the economic development of the whole sphere of material production.

The national economic (social) costs of production differ from production costs in that they include planned profitability. Planned profitability must take account of the economic effectiveness of advancing labor to furnish production with the necessary implements of labor and the appropriate technological equipment, and the efficiency of the utilization of the most favorable conditions of applying labor. Technical progress is based on gauging the economic yield of such advanced labor. The development of the necessary means of production and particularly the improvement of implements of labor promote a general rise in the productivity of living labor. The redistributed value of the surplus product, which is part of the costs of production, reflects the role of technical progress and the organic composition of social costs in the matter of raising labor productivity, which stands in reverse relation to social value. That is why national economic costs of production are the pivot around which the wholesale prices of the enterprise should be set. Therefore, planning the latter has to be based on the national economic costs of production, deviating from them solely for considerations of price policy (for example, stimulating production of key consumer goods or registering a temporary shortage of certain items, or the consideration of a prevailing disproportion between the rates of growth of labor productivity and cost reductions in certain types of production, etc.).

When justifying the deviations of prices from national economic costs of production it is important to see to it that wholesale prices of related goods whose costs of production [*izderzhki proizvodstva* — translator] and production costs [*sebestoimost'* — translator] differ, are unified. Yet deviations of wholesale prices from value must in no case result in two different price scales — one wholesale and the other retail. At the same time the notion that retail prices differ from wholesale prices solely by the amount of the trade and transport surcharge is incorrect. Retail prices should also include a certain portion of the value of the surplus product and, in particular, should compensate for that part of the expenditures on the maintenance of the non-productive sphere which was not covered by the portion of the value of the surplus product included in the wholesale prices. For this reason it is important that the differential rent added to the wholesale price should cover a certain portion of the expenditures of the non-productive sphere (e.g., expenditures on introducing the achievements of science and technology in production, expenditures on prospecting and forest conservation). This practice will prevent the appearance of two scales of prices and eliminate the gap between retail and wholesale prices.

Retail prices have their distinctive features as compared to wholesale prices because they are influenced by the law of supply and demand. Marxist political economy does not deny the effects of the law of supply and demand in the formation of retail prices, but our practice so far has paid little attention to the influence of this law. Consumer goods vary substantially in elasticity and flexibility of demand. Thus, a 5% price reduction for some commodities may cause the quantity demanded to rise 15%, while in the case of other commodities the same reduction will raise the quantity demanded no more than 1 to 3%. Hence, note should be taken of the coefficient of elasticity of effective demand. This coefficient equals the relative increase (or decrease) of quantity demanded divided by the relative decrease (or increase) of the price. The coefficient of elasticity differs from commodity to commodity. If the elasticity of demand for bread and related products is taken as unity, the comparable figure for, say, sugar or fats will be 2-2.5, for meat and butter — 5-7, and in the case of furniture and high-quality woolen textiles it would be very much higher. (21) A study of family budgets and of changes in sales during price reductions (or price increases) helps us to prepare a set of coefficients of the elasticity of effective demand in relation to price reductions (or increases) for key consumer goods.

Soviet planning makes extensive use of balances of money incomes and expenditures of the population. These help us to coordinate changes in the incomes and outlays of family budgets and to study changes in the population's effective demand. These balances should also be used to create an equilibrium between the mass of commodities sent to the market and the effective demand of the population, with a simultaneous thorough consideration of individual commodity coefficients of elasticity. The balances of money incomes and outlays of the population should be so patterned as to include a matrix of itemized commodity coefficients of elasticity. In that case deviations of retail prices caused by the relationship of supply and demand may be scientifically substantiated by the vector-matrix method of programming.

Retail prices fluctuate around market value, the latter being a modified form of value. When introducing the concept of market value, Marx pointed out that "market value regulates the relationship of supply and demand, or the center around which fluctuations of supply and demand cause market prices to fluctuate." (22) Thus, market value is a new modification of value corresponding to the retail level of prices.

Compared to national economic costs of

production market value includes outlays of social necessary labor on continuing the process of production into the sphere of circulation, and the value of the surplus product (in the case of commodities turned over in the market) unrealized in the wholesale stage. The sum of wholesale prices is equal to the sum of national economic costs, while the sum of market prices is equal to the sum of market values. Thus, market value represents the national economic costs of production fixed at the level of retail commodity turnover and including the value of the surplus product unrealized in the wholesale phase. Market value, which is a modification of the converted form of value, may be quite accurately determined by mathematical economic methods with the use of electronic computers.

Scientifically based deviations of prices from the value of commodities under the influence of demand and supply may be determined on the basis of market value (with proper consideration of the balance of the money incomes and outlays of the population and the itemized elasticity of effective demand). This enables us to establish the level of retail prices for individual commodities.

But this is not all there is to price planning. The latter should also be based on an appropriate price policy. Our price policy, for example, provides for higher prices on alcoholic drinks, designed to reduce their consumption, and lower prices on children's commodities, whose consumption we want to stimulate. Price planning normally involves reducing prices of commodities with a low demand and raising prices of new commodities, for which there is a high demand (in order to prevent elements of profiteering). Deviations of prices from value are also designed to stimulate and create a demand for commodities promoting the cultural development of the population.

A considerable amount of planning work is bound up with establishing planned prices for grades of commodities, individual articles, sorts, sizes and qualities of specific commodities. All these calculations should be based on the planned retail prices established on a value basis for the key commodities and thereby forming the value skeleton of the basic retail prices. But the fact is that such a planned basis may be established only for a relatively narrow range of commodities (a few hundred). Yet the retail price lists cover many thousands of items. It is quite obvious that the sum of prices in the lists should not exceed the sum of values, so that the deviations of prices on some grades, kinds and individual articles should, all in all, cancel each other out.

The system of planned wholesale and retail prices calls for stability, and therefore we should

ve a planned fund for adjusting prices. Under capitalism price adjustments occur solely through price fluctuations in the market. In a socialist society there is the possibility of adjusting demand and supply by altering the rates of allocations to the fund of the enterprise. In the case of commodities for which an inconsistency between demand and supply is noted in the process of realization, the supply may be stimulated by raising allocations to the fund of the enterprise, which is tantamount to changing the factory price. The allocations to the fund of the enterprise may be reduced or totally eliminated in the case of outmoded commodities for which there is no demand, and raised sharply in the case of commodities for which the demand is great. This may be done through the price adjustment and without altering the system of retail and wholesale prices.

Price planning requires the organization of a great deal of work on calculating costs of production of enterprises and shops, as well as daily supervision. Sometimes it also calls for the adjustment of such technological and national economic norms as rates of consumption of raw materials, supplies, power, norms of capital and labor requirements, coefficients of economic effectiveness, profitability rates, individual coefficients of elasticity, etc. Price planning is thus a highly complicated and responsible process. It requires a large number of diverse planned calculations by mathematical-economic methods and electronic computers. Price planning calls for special organized observation of demand and supply and changes in consumption norms. This kind of work requires a special body, Price Committee, the need for which has long been ripe. It may be said confidently that many shortcomings in our national economy will be eliminated if price planning and the planning of profitability of enterprises are radically improved.

Footnotes

- (1) Karl Marx, Capital, Moscow, 1954, Vol. III, p. 650 (Russian edition). [author's emphasis]
- (2) V. I. Lenin, Collected Works, Moscow, Vol. 3, p. 386 (Russian edition).
- (3) V. I. Lenin, Collected Works, Vol. 32, p. 2.
- (4) Leninskii Sbornik, XI, p. 388.
- (5) I. S. Malyshev, Obshchestvennyi uchet truda i tsena pri sotsializme, Sotsekgiz, 1960.
- (6) V. A. Sobol', Ocherki po voprosam balansirovaniia rodnogo khoziaistva, Gosstatizdat, 1960.
- (7) Karl Marx, Capital, Vol. I, p. 79.
- (8) Karl Marx, Contribution to the Critique of Political Economy, Gospolitizdat, 1952, p. 15 (Russian edition).

(9) Karl Marx, Capital, Vol. 3, p. 865 (author's emphasis).

(10) Marx and Engels' Archives, Vol. 4, p. 119 (My Emphasis. V. N.).

(11) I. I. Kozodoev, "The Necessity of Commodity Production and the Law of Value in a Socialist Economy," in Zakon stoimosti i ego rol' pri sotsializme, Gosplanizdat, 1959, p. 15; M. V. Kolganov, "Is it Advisable to Use the Principle of 'Prices of Production' in Planning," *ibid.*, p. 201; M. Sakov, "Some Problems of the Theory and Practice of Price Formation," Voprosy Ekonomiki, 1957, No. 12; Ia. Kronrod, "The Law of Value and Problems of Price Formation in the USSR," *ibid.*, 1957, No. 2; Bronislav Mints, "Price and Value in a Socialist Economy," *ibid.*, 1958, No. 1; A. S. Mendelson's report at the All-Union Conference of Statisticians reported in Vestnik Statistiki, 1957, No. 4, p. 91.

(12) I. S. Malyshev, Obshchestvennyi uchet truda i tsena pri sotsializme, pp. 75-101, 117.

(13) V. K. Dmitriev, Ekonomicheskie ocherki, Moscow, 1904, pp. 7-9.

(14) Note that the works of the French economist and mathematician, Leon Walras, usually cited by W. Leontief, the American economist, do not give this equation.

(15) Karl Marx, Capital, Vol. III, p. 184.

(16) S. Strumilin, "On Differential Land Rent Under Socialism," Voprosy Ekonomiki, 1960, No. 7; M. I. Nesmii, "Zonal Prices and Differential Rent," in Zemel'naia renta v sotsialisticheskom sel'skom khoziaistve, Gosplanizdat, 1959.

(17) The minimum planned rate of profitability should be distinguished from the general rate of profitability. The latter — in the form of the coefficient of economic effectiveness — is used when the variants of additional capital investments are compared. The minimum planned rate of profitability included in national economic costs is equal to the relation of the national income to the value of the fixed and circulating assets in the sphere of material production multiplied by a coefficient representing the relation of outlays of surplus labor extended on capital investments and the accretion of circulating assets to all (capital and current) expenditures of labor in the sphere of material production.

(18) Karl Marx, Capital, Vol. III, p. 846.

(19) See A. Bachurin, "The Operation of the Law of Value and Price Formation in the National Economy of the USSR," Voprosy Ekonomiki, 1957, No. 2.

(20) See D. Kondrashev, "Value and Price in Socialist Society," Voprosy Ekonomiki, 1957, No. 5.

(21) See B. Csikos Nagy, Problemy tsenoobrazovaniia i politika tsen, Sotsekgiz, 1960, p. 383.

(22) Karl Marx, Capital, Vol. III, p. 188.

T. KHACHATUROV:

Price Formation, Investment Effectiveness and Profitability

The growing volume of production and capital construction makes it all the more necessary to determine correctly how economically social labor is employed in production. Problems of the economical employment of labor and material resources and of increasing investment effectiveness were given a great deal of attention in the documents and decisions of the 21st Party Congress and the June 1959 and July 1960 Party Central Committee plenary meetings. We must strive for the more effective employment of capital investments and labor and material resources, and for a maximum reduction in the expenditure of social labor per unit of production.

Questions of price formation and investment effectiveness are among the most complicated and important in economic theory and practice. They have long been discussed in the press and by all sorts of planning, designing, economic and scientific organizations. An important step forward in the solution of the problem of investment effectiveness was made by the 1958 All-Union Conference on the Determination of the Economic Effectiveness of Capital Investments and New Technology. Its recommendations were supported by most scientists and practical workers. These recommendations were made the basis of "The Standard Methodology of Determining the Economic Effectiveness of Capital Investments and New Technology in the National Economy of the USSR" — a document worked out by the USSR Academy of Sciences and agreed to by the USSR State Planning Committee, the State Construction Committee, the Central Statistical Administration and the Construction Bank. This has already been widely applied in practice. A method of determining the economic effectiveness of integrated mechanization and automation of production was worked out in accordance with the decisions of the June 1959 Party Central Committee plenary meeting. A number of research and designing organizations are studying the actual effectiveness of capital investments and new machinery. By generalizing factual material, this work makes it possible to check on and improve the basic methods used and to concretize some of the principles. We must speed up the elaboration of methods of determining the effectiveness of capital investments and new

machinery for each specific branch. The efforts of economists — both theoretical and practical workers — should be concentrated on the solution of this problem.

Lately there have been attempts to return to a discussion of fundamental questions of economic theory, to revise — on an allegedly new basis — the principal formulations of the problem of investment effectiveness. What we have in mind is the so-called conception of prices of production being developed by I. S. Malyshev, V. A. Sobol, L. A. Vaag and others. We must analyze this conception and determine to what extent its adherents are right and whether or not it is necessary to revise the principles which the conference on the effectiveness of capital investments and new machinery adopted and on which it based its recommendations on the methodology.

The adherents of this conception propose to make the price of production the basis of price formation, the determination of investment effectiveness, the calculation of profitability and the assessment of the advisability of any economic undertaking. The scheme of calculation is as follows. The magnitude of the surplus product is determined for the whole of the national economy as the difference between the sum of values and the sum of production costs of the commodities which constitute the gross social product. Then the coefficient of national economic effectiveness is computed as the relationship between the volume of the surplus product and the sum of the fixed and circulating assets in the national economy. The absolute magnitude of the surplus product for each commodity is determined by multiplying the sum of the fixed and circulating assets of the enterprises producing the given commodity by the coefficient of national economic effectiveness. The magnitude of the surplus product obtained is divided by the number of units of the commodity produced. The quotient of this division is added to the production cost of the commodity (evidently, the average branch cost). The prices of production thus obtained are proposed as a basis for the system of prices.

It is not difficult to see that prices computed in accordance with the price of production scheme differ sharply from the prices which have actually

vailed in the national economy. Let us assume the magnitude of the surplus product in the national economy comes to 600 billion rubles and that the sum of the fixed and circulating production assets totals 2,000 billion rubles. This means that the surplus product accounts for 30% of production assets. There are about 80 billion rubles invested in the coal mining industry. Thirty per cent of this makes 24 billion rubles. Let us assume that the output of anthracite comes to 500 million tons. It means that for one ton of anthracite there are 48 billion rubles of surplus product. If the production cost of one ton of anthracite at the mine comes to 120 rubles, the price of production will be $120 + 48 = 168$ rubles. If we count freight charges, the price of 1 ton computed on this basis will be between 220 and 240 rubles at the place of consumption, that is, approximately twice the existing price. A similar calculation in the case of the cotton industry, for instance, shows that the price of one meter of cotton, computed in accordance with the price of production scheme is considerably below that of the existing price. A mechanical distribution of profits in proportion to production assets will require a basic revision of the prices of all types of commodities. It is also proposed — on the basis of the coefficient of national economic effectiveness — to determine the economic effectiveness of planned enterprises by computing so-called adjusted outlays (srednennykh zatrat — translator). These represent the sum of planned production costs and the product of value of assets and the given coefficient. The branches of production or enterprises in which these outlays are lowest are developed before others. It is also suggested that it is possible to compute the coefficient of investment effectiveness in a branch or enterprise by relating the difference between prices and production costs (that is, profit) to the value of fixed and circulating assets. In such cases the branches of production or enterprises to be developed first are those which have the higher coefficient. The difference between the price of the given commodity computed in this way and its actual production cost at a given enterprise helps to determine its profitability — the principal qualitative criterion of its production activity.

The proposed system of price formation and determination of investment effectiveness and profitability appears universal and efficient at first sight. However, a critical analysis of the price of production conception reveals that it is theoretically invalid and inapplicable in practice.

Let us first deal with the question of price formation. The calculations of effectiveness are designed to select the most rational variants of expenditures of social labor for the production of various goods.

To solve this problem it is necessary to have a system of prices that would reflect the real expenditures of social labor for the production of each commodity. It is well known that the existing system of prices does not satisfy this requirement for a number of reasons. At present, the prices of the means of production are generally below value, the deviations of prices from value differ markedly for individual goods, the prices of most goods do not take proper account of the social labor expended for their production. That is why the present system of prices must be improved and proper consideration given to the expenditures of social labor.

The proponents of the price of production conception propose to fix prices in the Soviet Union on the basis of production costs and profit, in proportion to the value of fixed and circulating assets. What is this proposal based on? As we know, only living labor produces new value. The magnitude of the value of the surplus product is proportional to the expenditures of living labor. In other words, equal expenditures of living labor create amounts of net product which are equal in value. Under capitalism, in conditions of free competition, value changes into the price of production; as a result of competition and the flow of capital into branches that bring higher profits, there appears a tendency to level out the rate of profit. The mechanism producing equal profit on equal capital, which Marx discovered, is inherent in capitalism and acts as the regulator of the distribution of social labor among the various branches, a regulator without which the capitalist system could not exist. It should be pointed out that this mechanism works without limitations only in conditions of free competition; at the monopolistic stage of development its automatic operation breaks down and in certain branches of production prolonged deviations from the average rate of profit are quite possible.

But if the distribution of profits in proportion to the capital advanced is inherent in the capitalist mode of production, then how is one to demonstrate the need for such a distribution of profits in our economy, one which is based on public ownership and the planned development of production?

In justifying the need to fix prices according to the price of production scheme, the exponents of this conception advance the following argument. In the socialist economy, they claim, the concept of value does not apply to any concrete commodity, for the surplus product is the result of all expenditures of social labor. While expenditures of the means of production and labor can be computed at every enterprise, the surplus product can be determined, it is alleged, only for the national economy as a whole. Only after this can it be distributed among

the branches. It is not difficult to see that this argument is based on the denial of value as an objective economic category reflecting the expenditures of social labor on the production of some definite, concrete commodity. Vaag has claimed time and again that in the socialist economy the price of production of a commodity is its value.

Even if one were to agree that the value of the surplus product can only be determined for the national economy as a whole, then why, it may be asked, should it be distributed in proportion to production assets and not to the expenditures of living labor, which create it? First, it is claimed, since labor productivity is always changing in different branches at different rates, if prices are fixed on the basis of value they will soon cease to reflect expenditures of labor and will have to be revised. But the exponents of this conception forget that when the surplus product is distributed in proportion to production assets, the share of each branch in the total sum of profits created in the national economy also cannot remain constant; it will depend both on changes in the level of labor productivity and on differences in the dynamics of the value of assets among the branches. This argument can be used against any method of distributing the surplus product, including the one advocated by the exponents of the price of production conception.

Second, they assert, if the surplus product is distributed in proportion to expenditures of living labor, profits will turn out to be higher in those branches and enterprises which have a lower organic composition of capital, and consequently these branches and enterprises will appear to be most profitable and, therefore, deserving of priority development. That the magnitude of surplus value will be higher in branches with a low organic composition of capital, and that as a result of competition the mass of profits will be less than the mass of surplus value, has long been known from Marx's *Capital*. But this does not mean that the socialist economy must develop branches with a low organic composition of capital at the old technical level. In our economy capital does not shift spontaneously to branches ensuring higher profits on capital. Every branch develops as planned, in accordance with social requirements determined with the aid of balance sheets and other planning calculations. But there are efficient and backward enterprises in every branch. If the prices of commodities are set at the level of value, in conformity with the socially necessary expenditures of labor, then at the technically efficient enterprises production costs will be lower and profit higher than at the backward establishments. This creates an economic stimulus for introducing progressive techniques and raising

qualitative economic indices of production within the given branch.

In branches with a low organic composition of capital the value of the product is high. The introduction of new machinery in these branches raises the organic composition of capital and thereby reduces the expenditures of social labor and the value of the product. Economically, this also stimulates the introduction of new machinery in branches with a low organic composition of capital.

One of the most important arguments in favor of the price of production is the claim that if prices are fixed on the basis of value, in branches with a high organic composition of capital the surplus product will be disproportionately small. But people who claim this forget that the value and the physical volume of the surplus product are incomparable magnitudes. New value is created by living labor, not by production capital. This is elementary political economy. That is why in branches with a high organic composition of capital the value of the surplus product will indeed not be very high although in physical terms it may be very large. It would be a mistake to assume that with the growth of capital per worker the magnitude of the newly reproduced value will fall in proportion to the reduction in the number of workers. The value of a product is determined not by the expenditures of labor at some highly automated enterprise, but by the socially necessary expenditures. Moreover, the labor employed in automated production is undoubtedly more skilled and thus produces a far greater value than unskilled labor. Nevertheless, the value of the surplus product in branches with a high technical level and a high organic composition of capital is relatively low. But the labor productivity of workers employed in such branches is very high and the surplus product is reflected in a large mass of output.

The exponents of the price of production claim that the magnitude of the surplus product can be determined only for the national economy as a whole. This is a groundless claim. All new value is created by living labor and is therefore proportional to the expenditures of living labor in the different branches and enterprises. Value does not represent the sum of costs of production and average profits on investments; (1) it is not made up of separate elements, but is broken down into them. Its magnitude may be determined if we approach it by considering the number of hours of labor required to produce a given commodity. But since the various types of concrete labor of different skills and intensity are not comparable, we must solve the problem of reduction — reduction of complicated labor to simple labor. With present

computing techniques this can be solved with a certain degree of accuracy even today. The labor of workers can be reduced to a uniform measure by using the kind of coefficients which are applied in the wage scales to establish wage relationships for work of diverse qualifications. In our country wages are fixed on the basis of the law of distribution according to the quantity and quality of work done. If these scales are inaccurate, they should be improved and coefficients should be worked out to reflect correctly the differences in skill, degree of intensity of labor and working conditions. It is also possible to work out coefficients reducing the highly skilled work of engineers and technicians engaged in material production to simple labor. The use of this system of coefficients makes it possible to express the total expenditures of labor in all enterprises, branches and the national economy as the whole in hours of simple labor.

Knowing the magnitude of newly created value in the national economy (national income), and the total number of hours of simple labor expended during that same period, it is possible to calculate in money terms the magnitude of value created by one hour of simple labor. Then, using the method of successive approximations, it is easy to find the magnitude of new value produced in each branch and at each enterprise. After deducting outlays on the remuneration of labor employed in the sphere of material production from the newly formed value, we get the magnitude of the surplus product for each branch, enterprise and commodity. Knowing the value of the means of production consumed in the manufacture of various commodities, we can compute the total value of any product. All this, of course, will require painstaking calculation, but in principle this problem can readily be solved. And the more we advance toward a communist society, the more acute will be the need for the direct accounting of expenditures of social labor.

In short, the claims of the exponents of the price production conception that it is impossible to determine the magnitude of the surplus product for individual commodities are groundless. In this respect there are no obstacles to fixing prices on the basis of the value of commodities. Actual prices, of course, must and will deviate from value. Price is not only a measure of the expenditures of social labor on the production of goods, but also a means of regulating production, distribution and consumption. It should reflect both the quality of output and its role in popular consumption and, if necessary, its redistributive functions.

Prices fixed on the basis of value, in the only correct interpretation of this category, will provide

a firm basis for calculating the real expenditures of labor on the production of goods. Price formation on the basis of prices of production would not eliminate the shortcomings of the present price system. If at present the prices of products in department I are below value, their revision on the basis of prices of production would cause prices to rise above value, and the higher the organic composition of capital or, to be more correct, the greater the share of production assets per ruble of output, the greater the rise would be. On the other hand, in branches with a relatively small amount of production assets per ruble of production, prices would be below value. Practically speaking, power rates and fuel and ferrous-metal prices would rise sharply, while the prices of light industry goods, foodstuffs and agricultural produce would be reduced. Inasmuch as it is possible that prices would deviate from the prices of production because of shortages of certain commodities or for other reasons, it appears that the revision of prices on the basis of prices of production would not achieve what the proposed reform envisages — reflection of the actual expenditure of social labor in prices.

The practical meaning of the price of production conception boils down to the following. Its exponents believe that in our economy social labor should be distributed and redistributed among the branches of production, areas and enterprises with a view to securing maximum profitability. In their opinion, profit is the criterion which should determine what branches and enterprises are to be developed first. They proceed from the same criterion in determining the distribution of capital investments among branches and enterprises. But such a model of the socialist national economy is abstract, far-fetched and clearly in contradiction with our requirements. The economic laws operating in our country are socialist laws, and the rates and proportions of national economic development are not determined by the law of value.

The distribution of capital investments among branches and their rates of growth in the socialist economy are determined not by the level of profit obtained in one branch or another, but by the requirements of the balance of the national economy, by the task of ensuring the priority development of production of the means of production with a view to achieving maximum rates of reproduction, and by the constantly growing popular consumption. Of course, in order to make the basic features of the plan more precise and concrete, it is very important to use value categories. This is essential in establishing the proper combination of branches producing interchangeable goods, in locating industry correctly, in determining the most efficient

machinery and technology, in organizing production and determining the optimum size of enterprises. It is on the basis of economic calculations that the originally established proportions between branches of industry and areas are amended. Comparison of the expenditures of social labor in the different fuel and power branches of industry makes it possible to select proper proportions in the output of coal, oil, gas and electric power; comparison of the expenditures of labor in the iron and steel industry and in chemical production, in the timber and building materials industries, helps us to determine the most favorable relationship between the output of ferrous metals and that of plastics, between the output of timber and mineral building materials, etc. Similarly, it is by comparing the amount of labor expended on the development of coal mining in the Donets Basin and the East, and on the production of aluminium in the North and the South, that the problem of the most advantageous location of industry in accordance with the requirements for these commodities is solved. Comparison of the expenditures of labor is also essential, for instance, in selecting different methods of producing steel, different equipment and technology in machine-building, the most appropriate capacities for sugar refineries, etc.

But the value indices cannot be used as criteria in choosing between fuel and textiles, metals and sugar. In practice it would be very difficult to shift miners, for instance, to the textile industry, or steel workers to sugar refineries. Therefore, even if it were recognized that, say, it would be more profitable to develop machine-building in the Urals than in Transcaucasia, the job of using the existing manpower resources in Georgia or Armenia would require the development of those branches of industry that would make it possible to employ the able-bodied population on the spot, even if with less profit than in some other area.

Consistent application of the proposals of the exponents of the price of production would inevitably lead to a mechanistic interpretation of the role of the law of value as a regulator of the socialist economy and of the possibility of constantly shifting manpower and means of production from one branch to another. We do not think that they will agree with such conclusions, (2) but the logical development of their viewpoint unavoidably leads to situations that are incompatible with the planned character of the socialist economy.

The effectiveness of capital investments is determined by the extent of the increase in the productive power of social labor. Equipped with improved plant, labor becomes more productive. Since the extent of the rise in labor productivity — as it is provided with increased equipment — differs

from branch to branch and area to area, the indices of investment effectiveness and profitability also differ among branches and areas. But these differences cannot regulate the distribution of capital investments among branches. These investments are carried out in accordance with production requirements in one branch or another. The fact that the amount of the surplus product calculated in proportion to the value of production assets is not equal everywhere is not of great significance for the distribution of capital investments because under socialism a large part of the profit is redistributed through the state budget and is not necessarily used where it has been created, but in the branches whose development is dictated by the requirements of the national economy.

The establishment of prices on the basis of value makes it possible to compute the magnitude of the net product created in each sector of the national economy. This will permit us to determine the absolute effectiveness of capital investments not only in the national economy as a whole, but in the branches and at the enterprises as well. Investment effectiveness may be determined by the relation between the increase of net output (in physical terms) and the capital investments giving rise to this increase; and the effectiveness of production assets, by the relation between the total net output and the sum of fixed and circulating production assets. The use of these relations as criteria of effectiveness requires further elaboration of a number of important problems, but their analysis is not the task of this article.

The price of production conception is based on the view that investment effectiveness is determined by the relation between the value of the surplus product — not the whole of the newly created value — and the volume of capital investments. The argument adduced to support this position is that the magnitude of the other part of the national income that used for the personal consumption of those engaged in the sphere of material production, is allegedly predetermined by the national economic plan. In actual fact, this part of the national income is not predetermined beforehand; it is a variable magnitude. The result of the production process is the entire newly created product, not just the surplus product. The greater or lesser magnitude of consumption is also the result of the greater or lesser effectiveness of the expenditure of social labor. That is why only the national income as a whole, related to expenditures, can be the index of effectiveness.

The exponents of the price of production are absolutely wrong in supposing that the average coefficient of effectiveness for the national economy,

determining the relation between profits and the amount of production assets, can simultaneously serve as a standard coefficient of effectiveness, a criterion for the choice of variants of capital investment. Thus, Comrades Vaag and Zakharov write that the only economical variant of technical improvements is one which ensures the creation of "a surplus product no smaller than the one conforming to the average coefficient of national economic effectiveness." (3) Z. V. Atlas claims that if the average norm of investment effectiveness is not entered by a planned measure, this means that the measure is not sufficiently effective and a new one should be drawn up. (4) This important principle of this whole conception, determining its seeming efficiency, is in fact based on a misunderstanding. The standard coefficient in accordance with which the variants are selected is not an average magnitude, but the extreme, minimum magnitude conforming to the requirements of effectiveness. Moreover, it cannot be the same in all branches. If for the entire national economy the average coefficient of effectiveness of measures taken under the plan is, say, 0.15, this does not mean that all these measures are equally effective. In fact, in the case of many measures the coefficient of effectiveness will be higher — say, 0.20 or 0.25 — while the coefficient of effectiveness of other measures will inevitably be below the average for the national economy as a whole. The standard coefficient will not be the average — 0.15 — but the minimum coefficient (say, 0.05) of the measure included in the plan. If the coefficient 0.15 is taken as the standard coefficient, then measures with an effectiveness of 0.10 or 0.05 should not be included among those to be carried out. But then the average coefficient would not be at the level of 0.15, but higher.

The standard coefficient of effectiveness is not equal to the average magnitude; it is always below it. It is only by accident that the magnitude of the standard coefficient of effectiveness in the various branches is identical; in most cases it is not. Let us assume that in some branch, say, the cement industry, it is necessary to build five factories with a capacity of one million tons each to increase the output of cement by five million tons as envisaged in the plan. Let us assume that the coefficients of effectiveness at these factories vary from 0.08 to 0.2, and the average coefficient is 10%. The standard coefficient of effectiveness with the aid of which these five factories would be selected would be 8%.

In another branch of industry, say, ferrous metal, it might be necessary to build three new plants, when the coefficients of effectiveness of the three designs among the many designs submitted coming to

6, 8 and 10%, and the average to 8%. The standard coefficient of effectiveness in accordance with which the enterprises included in the plan would be selected would be 6% for the whole ferrous metals industry, with 8% as the average. If we took as a standard coefficient the average coefficient for the whole national economy, say, 10%, that would mean it would be advisable to build only three cement factories with coefficients of 0.1, 0.11 and 0.12, and only one iron and steel plant with a coefficient of effectiveness of 0.1. What is more, in both cases we would not increase output to the extent necessary to satisfy the requirements of the national economy for the products in question.

But if the standard coefficient of effectiveness cannot be equal to the average, then the presumed chief advantage of the entire conception — its efficiency and universality — disappears. It turns out that it is impossible to determine the standard coefficient of effectiveness as a simple ratio of surplus product to production assets. On the other hand, if the standard coefficient of effectiveness is not the average effectiveness for the entire national economy, and if such coefficients must be calculated on the basis of a special analysis and differentiated branch by branch, we arrive at the same treatment of indices of effectiveness as appears in "The Standard Methodology of Determining the Economic Effectiveness of Capital Investments and New Technology" worked out by the USSR Academy of Sciences.

We should not confuse the absolute and relative effectiveness of capital investments. The indices of absolute effectiveness characterize the increase in net output in the national economy, in a branch or at an enterprise as a result of capital investment. They make it possible to judge the magnitude of the yield of the given variant of capital investment. The computation of relative effectiveness provides the answer to the question of the advisability of additional capital investments in comparing several variants of the solution of some economic problem.

The "standard methodology" involves the use of branch coefficients of effectiveness in the calculation of the so-called adjusted expenditures by variants. It is recommended that these calculations be made according to the formula $c + eC$, where c is the production cost, C the capital investment, and e the standard coefficient of relative effectiveness. Let us assume that we must compare two variants of power output in a given area — by building a hydropower or a thermal power station. Let us further assume that to produce the required amount of power we shall need a hydropower station with a capacity of one million kwh. or a thermal power station with an aggregate capacity of 830,000 kwh.

Capital investment in the case of a hydropower station comes to 3,000 rubles per one kwh. of installed capacity, and the total sum of investment comes to three billion rubles, while for the thermal power stations the sums are 1,500,000 rubles and 1,245 million rubles, respectively. The production cost of electric power (including depreciation) at the hydropower station is one kopek and at the thermal power stations — five kopeks per one kwh., while the cost of the annual output is 50 million and 250 million rubles, respectively. Then, with a branch coefficient of relative effectiveness of 0.1, adjusted expenditures at the hydropower station will be $50 + 0.1 \times 3,000 = 350$ million rubles, and at the thermal power station $250 + 0.1 \times 1,245 = 374.5$ million rubles.

The exponents of the price of production believe that the adjusted expenditures calculated according to the formula $c + eC$ represent the branch price of production and that, therefore, there is no difference between their proposals and the "standard methodology" recommendations. In actual fact, the adjusted expenditures have nothing in common with the price of production either in economic content or in the scheme of calculation. First of all, the price of production presupposes the establishment of a single rate of profit for the whole national economy. Second, the adjusted expenditures $c + eC$ are not the price at which commodities are sold, but a calculated magnitude of expenditures which take into account the effect of the rise in labor productivity through the provision of increased capital per worker. Third, the standard coefficient of relative effectiveness e is not the average rate of effectiveness in a branch, but the minimum rate according to which the given variant is recognized as sufficiently economical to be included in the plan.

But how is one to determine the standard indices of effectiveness? The chief method is that of studying actual material on the yield of capital investments branch by branch. In elaborating problems of effectiveness, it is time to end the fruitless theoretical arguments that are not supported by any analysis or generalization of the facts. There is an abundance of data on the actual effectiveness of capital investments, and on investments made in the past and in accordance with plans which are still to be implemented, and they should be collected and processed. A great deal of material is already being used in elaborating the methodology in the branches. Of considerable interest is the research carried out by the USSR Construction Committee jointly with the Institute of Economics of the USSR Academy of Sciences and several other organizations into the actual effectiveness of capital investments on the basis of long-term data of the

designing and research institutions. On the basis of this material it is undoubtedly possible to establish differences in the indices of effectiveness for the individual branches and to work out branch standard coefficients.

Does this mean that the average index of effectiveness for the national economy is of no importance and that it should not be calculated? No. The average effectiveness of investments in the national economy is a very important index, one which is of help in determining branch standard coefficients. It is also necessary for many calculations, notably, for the solution of problems connected with investments made at different periods with due consideration of the time factor.

The exponents of the price of production conception claim that if price fixing was revised as they propose, there would be no need for any additional calculations in selecting the variants of capital construction, for this could then be done by giving preference to the variant ensuring the lowest price of production. Faith in the magic of the price of production has led some economists to claim that the problem of investment effectiveness does not exist. This problem, they say, is part of the problem of price formation. The problem of effectiveness would be solved if prices were correctly established.

This is an extremely hasty conclusion, to say the least. The problem of investment effectiveness involves comparing expenditures on the creation of implements of labor with current operating expenses in production. As the productive forces develop, society expends an increasing part of its total labor resources on the creation of implements of labor with a view to reducing the expenditure of living labor on the production of goods. The problem of comparing labor expenditures for the creation of implements of labor which are used for extended periods in a number of production cycles, with current expenditures of labor, involves consideration of the time factor. That is why the coefficient of effectiveness used for such comparisons is one that reflects the growth of labor productivity as the result of improved plant and equipment.

One complex problem connected with the time factor is the comparison of variants involving investments at different times or, in other words, calculation of the effect of postponing capital investments. If it is possible to economize by postponing investments, this is tantamount to increasing capital investment funds. The sums economized will be productively used to equip workers with new implements of labor. But since it is not known in what branch or enterprise they will be invested, we may assume that the effect of their use will be

al to the average effect throughout the national economy. Part of the increase in output derived from the investment of the economized resources will again be directed into production, and this in turn will produce an effect, and so on. The exponents of the price of production claim that the determination of the entire magnitude of the effect obtained during the period of utilization of economized resources requires calculation according to the compound interest formula, proceeding from the average relation of the surplus product to the production assets for the whole national economy. In short, what we have here is the same "universal" index — the average coefficient of effectiveness.

In this case this coefficient is inapplicable, for it is only a part of, and not the whole, increment of the surplus product received through the saving of resources that is used for new investments. Let us assume that one million rubles are economized, and that the average coefficient of effectiveness is 0.3. The magnitude of the average annual effect comes to 300,000 rubles. But only a part (say, half) of these 300,000 rubles will be reinvested in production assets, while the rest will be used to increase productive assets, finance the nonproductive sphere and expand consumption. Consequently, the coefficient representing the effect obtained through the use of the economized capital investments will be only 0.15 in the event the average coefficient of effectiveness is 0.3. The average profit in relation to assets is thus unsuitable as a "universal" index here. Reality is much more complicated than the abstract schemes divorced from life with which the exponents of the price of production conception operate.

In conclusion let us examine some problems of profitability and cost accounting at enterprises. The adherents of the conception under review define profitability as the difference between the average branch price of production and the production cost of individual enterprises. But the price of production, with the given average coefficient of effectiveness, will be higher in those branches which utilize larger amounts of production assets. This will create an incentive to inflate production assets, for the price and, consequently, profits, will depend on the volume of assets. It is proposed that such unjustified expansion of the volume of assets and attempts to undertake more capital investments which are needed can be overcome by introducing obligatory deductions to the state from the value of production assets used at enterprises. But what will this lead to?

the deductions from the value of assets are

calculated as expenses of the enterprise and are included in the production cost of its output, then planned profits must be established at a lower level than is provided for by the price of production formula, and the coefficient of profitability will lose its significance as a "universal" and "objective" criterion for assessing the qualitative results of the work done by enterprises. If, as some economists suggest, the deduction is made from the enterprise fund, then the personnel of the enterprise will not be interested in enlarging or reconstructing it. This would mean creating obstacles to increasing capacity at existing enterprises and to introducing new equipment.

Transition to the system of prices of production would mean that enterprises with large amounts of fixed assets — say, hydropower stations — would be making huge profits that are incommensurable with expenditures of living labor. It is difficult to imagine what influence the personnel of an enterprise could exert on the increase or decrease of these huge profits and how much this change in profits could stimulate the introduction of new plant and improvement of the quality of work.

Viewing the profitability of an enterprise as a factor determining the material interest of its personnel in improving the quality of its work, it should be borne in mind that from this angle it is a question not of the absolute magnitude of profit, but of correctly establishing that part of it which — in the form of the enterprise fund — can be used for improving workers' cultural and living conditions, bonus payments, etc. In establishing prices on the basis of value, there will be no difficulty in determining the magnitude of the surplus product created by the personnel of an enterprise; in the case of equal productivity it will be proportional to the expenditures of living labor, and every worker will see much more clearly the link between the quality of his work and the amount of the enterprise funds.

Footnotes

(1) This is how value is defined by L. Vaag and S. Sakharov (see *Voprosy Ekonomiki*, 1960, No. 7, p. 105).

(2) Although there are direct assertions to the effect that priority development should apply to the branches of industry of enterprises with the highest coefficient of effectiveness.

(3) *Voprosy Ekonomiki*, 1960, No. 7, p. 110.

(4) See *Voprosy Ekonomiki*, 1960, No. 10, p. 79.

A. PROBST:

Value or Price of Production in the Socialist Economy?

In planning the socialist economy and ensuring a balanced development of social production and a maximum increase in the productivity of labor, it is indispensable to know the value of various products, i.e., the amount of socially necessary labor expended for the output of each product. Only if this condition is observed is it possible to correctly distribute social labor resources and means of production among the different sectors and thus achieve their most effective utilization. The economic effectiveness of different technical variants of production (new equipment, for instance) can be correctly determined only on the basis of value. The same is true of selecting those paths of development (both in separate sectors and in social production as a whole) that will ensure maximum labor productivity in the whole national economy.

The growth of labor productivity is the principal indicator of social progress and the principal criterion of the effectiveness of technical progress. In order to achieve a maximum rise in labor productivity we must assess correctly changes in labor productivity and, therefore, the value of the output which reflects the productivity of social labor.

Under the socialist system of planned economy, value must be primarily a means of reckoning social outlays and of measuring the productivity of social labor (although while commodity-money relations prevail in a socialist society value also expresses other social functions). (1) One cannot agree with some economists (A. S. Mendelsohn and others) who hold that value is "unknowable" and that it is actually impossible to measure it. In the commodity-capitalist economy exchange value is formed spontaneously, behind the back of commodity producers, and for that reason it cannot actually be calculated. Fundamentally different conditions prevail in an integrated planned economy, one in which it is impossible to deny the direct or indirect measurement of expenditures of social labor, for this would amount to a denial of the actual possibility of rationally planning the national economy.

Until recently changes in the productivity of social labor were calculated by an indirect and quite inaccurate method — by changes in the production cost of output. This is a very imperfect and therefore inadequate method of resolving problems of far

greater complexity and scope arising in planning at the present stage of development of the socialist economy. Today we are faced with the pressing need to actually calculate the value of output, and on this basis to solve many problems arising in national economic planning — first of all those relating to an accurate determination of economic effectiveness and to the establishment of national economic proportions.

Because the values of different commodities are linked together (the value of some commodities is a component of the value of other commodities), the isolated calculation of the value of any single commodity or even of a group of commodities is ruled out. The calculation of value can only be made simultaneously for all commodities forming the sum total of the social product; moreover, it is feasible only by the method of successive approximations. With allowances for certain provisional elements in the first stage of the calculation (and for the output of the first group of branches), we must introduce frequent corrections on the basis of subsequent calculations. This is one of the difficulties involved in the practical calculation of value, a difficulty which requires that this calculation be organized on a nation-wide scale. But if these calculations are adequately organized and extensive use is made of modern electronic computers, these difficulties can be eliminated with relative ease.

Certain methodological difficulties arise in the calculation of value. Following the discussion and elaboration of this question, a number of suggestions were submitted which to some extent make it possible to eliminate these obstacles.

At the same time in the past few years new arguments have been advanced against the practical application of value and in general against value as such. Some writers (2) hold the view that in a socialist economy, instead of value in its "pure" form, we should apply the price of production, which, they hold, represents a modified and more suitable form of value for a socialist economy. They hold that value in its "pure" form is applicable only to simple commodity production characterized by a low level of development of productive forces and primitive implements. Hence, they maintain that the modified form of value, viz., the price of

duction, corresponds to the contemporary development of productive forces and modern material technical facilities. Hence, the main problems of socialist planning can allegedly be solved in the most efficient way on the basis of the price of production, and not on that of value. Some of these writers even hold that the price of production is the universal and best medium for solving almost all problems of the socialist economy: price formation, economic effectiveness, incentives to technical progress, cost accounting, etc. (3) As a final argument it is asserted that the practical calculation of price of production is much simpler and easier than the calculation of value.

The idea of "the socialist price of production" has been increasingly advocated of late. It has found particular support among engineering-technical personnel, for it appeals to them because it appears to give simple, almost automatic solutions through ordinary calculations of all complex economic problems. This is a compelling reason for rejecting to careful scrutiny the arguments in favor of the proposed changes not only in the whole practice of socialist planning, but in the theoretical foundations of the socialist economy as well. First of all it is necessary to examine the initial premise: it is not true that value in its "pure" form (or as some authors formulate it in its "primitive," "undeveloped" form) corresponds only to commodity production with underdeveloped productive forces and primitive implements. Then we must ascertain what causes the conversion of value into price of production in the capitalist economy — economic relations or material and technical factors.

Marx pointed out that under capitalism the formation of the price of production as a converted form of value stems from the fact that "commodities are exchanged simply as commodities, but as products of capitals, which claim participation in the total amount of surplus value proportional to their magnitude." (4) In the supplement to Vol. III of *Capital* Engels stressed that this is the "decisive message" in Marx's explanation of the causes of formation of the price of production, and that the law of value "undergoes a modification through the appearance of the capitalist mode of production." (5) Differences in the technical composition of capital in different branches of production were a necessary condition, but not the cause of the modification of value into price of production. I. S. Malyshev, V. Atlas and other writers forget this proposition and state that value is converted into price of production because of the appearance of new material conditions (highly developed machinery, etc.) which determine the differences in the technical composition of different branches of production, and thus,

in the organic composition of capital in these branches.

We hold that this explanation of the causes of modification of value under capitalism is faulty. It is wrong to assume that in simple commodity production there are no differences in the material and technical conditions of production which could give rise to varying rates of profit in various branches of production. It is true that where primitive hand techniques prevail the difference in the amount of implements of labor in various branches would be relatively small and could not have practical significance. But in simple commodity production a division of labor existed and the production of goods was carried out with both local and purchased raw materials. The value of raw materials was unequal in different branches. Hence, in simple commodity production there were unequal proportions of living to past labor in the value of the manufactured products of different branches, even when the level of development of instruments of labor was the same.

Differences in the rate of profit in different branches are determined not only by differences in the organic composition of capital, but also by the varying rate of its turnover, which in turn largely depends on the length of the production period. However, even with the most primitive techniques, the length of the production period in different branches — far from being equal — could differ substantially (for instance, in crop farming and cattle breeding, in shipbuilding and the textile industry, etc.). (6)

It follows that even in simple commodity production, in spite of its primitive techniques and low rate of development, there was a considerable differentiation in material and technical conditions, and this could lead to varying rates of profit in different branches. This differentiation, however, could not modify value into price of production, because suitable conditions in the form of the corresponding production relations were lacking. These conditions arose with the emergence of the capitalist mode of production.

Some economists assert that exchange according to value is possible only when the level of development of productive forces is low and the techniques used are primitive. These views are based on a misunderstanding. It is true that Marx wrote: "The exchange of commodities at their value, or approximately at their values, thus requires a much lower stage than their exchange at their price of production, which requires a certain level of capitalist development." (7) But in this case what Marx has in mind is not the different level of development of production techniques, but the difference in commodity relations, in capitalist relations,

in particular. The appearance of a new form of value required a transition from simple commodity production to the capitalist mode of production. This proposition, which is mistakenly interpreted by some economists, clearly shows the Marxist method of analyzing the connection between the modification of value and the development of production relations.

Were the partisans of the concept "price of production" more consistent, they would hold that the most highly developed forms of value prevailing under capitalism are valid under socialism and, therefore, they would have to uphold the application of monopoly price instead of the price of production. After all the former, too, is a modification of value inherent in the higher stage of capitalism, i.e., in imperialism, which has the highest technical base in comparison to the preceding stage. However, none of the above-mentioned writers arrive at the conclusion — quite logical from the standpoint of their arguments — that the category of monopoly price should be utilized in the socialist economy. (8)

Thus, one must consider as basically wrong the explanation that the modification of value into price of production under capitalism is caused by technical factors (differences in the technical composition of capital), and regard as theoretically and historically untenable the argument favoring the application of the price of production under socialism.

A number of writers (I. Malyshev, V. Sobol, and others) are trying to prove that under socialism the price of production only superficially resembles the price of production under capitalism; that it does not express the production relations specific to capitalism; that under socialism it does not regulate production spontaneously and that it does not arise spontaneously, but is determined according to plan. Thus they consider the "socialist price of production" as a purely "accounting category," as a means of solving essential problems of socialist planning and, in particular, of securing a maximum rise in the productivity of social labor.

The exponents of the concept of "price of production" are quite right in asserting that the social and economic content of the price of production devised in this way for a socialist economy must differ radically from the price of production operating under capitalism. Under socialism it is not surplus value that is distributed, but the surplus social product, and not in proportion to invested capital, but to the social production assets. Finally, this redistribution, as well as the formation of the price of production, must proceed consciously, according to plan. One may and should agree with this, and overlook the superficial similarity between this type of "price

of production" and its capitalist counterpart. But the adherents of this concept fail to give an answer to the basic and decisive question: why should there be a modification of value into price of production in the socialist economy, and to what extent is this modification in keeping with the nature of the socialist economy and its theoretical foundations? Proof must also be forthcoming that the introduction of this "mechanism" or "calculation" with the aid of the price of production offers practical advantages in socialist planning.

Under capitalism conversion of value into price of production is a result of the exchange of commodities not as products of labor, but as products of capital. Inasmuch as profit is the only motive and aim of capitalist production, every capital must necessarily receive a proportionate share of the over-all profit. This is organically connected with the fact that under capitalism profit is the only criterion of economic effectiveness and that all matters related to the capitalist economy are decided only from the viewpoint of achieving a maximum increase in profits.

But can profit — the underlying basis of the price of production — become the aim and motive force of the socialist economy? The partisans of the "socialist price of production" reply to this that at the basis of this concept lies not profit but the social surplus product, whose growth expresses the growth of the productivity of social labor, which in turn is the "absolute" and "prime economic law" of the socialist economy.

The growth of the social product is related to the growth of labor productivity, but its magnitude depends not only on the level of labor productivity; it also depends on the distribution of the newly-created value, i.e., the national income. The surplus product may decline even when labor productivity is rising, if the ratio of necessary to surplus labor undergoes a corresponding change. A shorter working day and higher living standards may lead either to a decline of the surplus product while labor productivity is rising, or to an imbalance between the rate of growth of the surplus product and that of labor productivity.

The growth of the surplus product in itself cannot be the aim of socialist society, for this would conflict with the fulfillment of such essential tasks of this society as the improvement of living standards, the reduction of the working day, etc., which, all other conditions being equal, would lead to a shrinkage of the surplus product.

The productivity of social labor is a direct determinant of the total volume of the social product. One may accept the growth of the national

come as an indicator of the growth of labor productivity, i.e., that part of the social product which corresponds to the newly-created value. The growth of the surplus product may coincide with the increase in labor productivity, all other conditions remaining unchanged. But inasmuch as in reality these "other conditions" are changing, the growth of the surplus product cannot reflect the increase in labor productivity with sufficient accuracy. (9) The growth of the surplus product and of labor productivity may fail to coincide not only on a national scale, but even to a greater extent within individual branches. The growth of labor productivity in a given branch may cause a growth of surplus labor in other branches where labor productivity is not rising. (10)

If the formation of an average rate of profit corresponds to the nature of capitalism, why should it not apply to socialism? Is this in keeping with the nature of socialism, even if an average rate of profit will not materialize spontaneously but according to plan? The champions of the "socialist price of production" are unable to answer this fundamental question. They have no unified theory explaining the causes of and means of formation of an average rate of profit under socialism. Some believe that an average rate of profit is formed through the redistribution of the surplus product created in various branches. But in that case they must explain why the redistribution of the surplus product under socialism must be effected (by analogy with capitalism) in proportion to the production assets. For the capitalist views all the components of his capital, including constant capital, as equal sources of surplus value. This approach is contrary to the theoretical foundations of the socialist economy. Some other writers believe that labor productivity is unequal in different branches because the workers are unequally equipped with means of production; hence an equal number of workers in different branches produce unequal amounts of surplus product. (11) But this contradicts the principles of Marx's economic theory.

Marx demonstrated that in different branches, irrespective of the level of the organic composition of capital, an equal number of workers of equal skill, working with equal intensity during an equally long working day, create equal values. This is one of the basic propositions in the Marxist theory of value. If one were to accept the proposition of a different labor productivity in different branches, and the production of an unequal volume of surplus product by one and the same unit of living labor, one must infer that the same unit of living labor produces values of different magnitudes in different branches.

Marx emphasized that "in itself, the magnitude of value of total capital has no inner relationship to the magnitude of surplus value, at least not directly." (12) If the difference in the total volume of the produced surplus value and in the level of labor productivity in various branches corresponded to the difference in the organic composition of their capitals, then capitalism would not require the category of price of production. In that case an equal rate of profit could be secured without redistribution of the surplus value among the branches. This was how Professor Julius Wolf sought to explain the formation of the average rate of profit in his time, without resorting to the price of production. In his preface to the Volume III of *Capital* Engels subjected this thesis on the direct relationship between the growth of constant capital and the increase in surplus value to harsh criticism. (13) For their part, the authors of the concept being examined here assert that the magnitude of the surplus product bears a functional relationship to the magnitude of the production assets.

Thus the idea of the "socialist price of production" is in conflict with a number of essential propositions of Marxist economic theory and is also internally inconsistent.

The principal error of the proponents of this concept is that they confuse the theoretical foundations and the mechanism of formation of the price of production with value as a branch category. The price of production is a consequence of the inter-branch redistribution of surplus value, but it has nothing in common with its redistribution within a branch resulting from the formation of a uniform branch value. In the different enterprises of a branch labor productivity is usually unequal, and the result is that the same product may have a different individual value within a given branch. However, value (in this case social and branch value must coincide) is not determined by individual but by socially necessary labor, i.e., by labor of average productivity. The reality of the category of socially necessary labor is explained by the commensurability of labor productivity in different enterprises of the same branch, inasmuch as they are producing use values of the same type, which are therefore commensurable.

The effective promotion of technical progress rests on the formation of social (branch) value which is determined by the expenditure of socially necessary labor. The assertion that economic incentives to technical progress can be secured only by the price of production is not true. The price of production does not contribute anything new to the problem of stimulating technical progress within branches, for the incentive created by the price of

production, as well as by value in its "pure" form, rests on differences between expenditures of individual and socially necessary labor.

An analogical scheme is inapplicable to the national economy as a whole when we view a separate branch in the same way we do a separate enterprise within a given branch. It is impossible in the first place because labor productivity in different branches producing use values of different types (satisfying different requirements) is in general incommensurable. (14) Hence, it is also impossible to determine directly the different levels of technical development in such branches as, for example, metallurgy and food, for the level of technical progress is defined only in terms of labor productivity. Any other comparisons based on indirect indicators are inevitably arbitrary.

Differences in the technical level of various enterprises within a given branch, as well as in the technical and organic structure of their production assets, in the degree to which they are provided with implements of production, in the magnitude of their expenditures of production assets per unit of product, etc., are not organic in character. Therefore they are always transitory and can be eliminated. But differences in the organic composition of production assets and expenditures of these assets per unit of product in different branches are determined by their varying technical nature, by organic differences in their technology. It is therefore impossible, and besides it is unnecessary, to "equate" the technology and technical nature of different branches. It follows that the course of technical progress is not the same in different branches.

Therein lies the basic difference between the interrelations of enterprises within the same branch and in different branches. There is no way of removing it through the formation of the price of production. The significance and role of the price of production under capitalism is that in spite of all these interbranch technical differences it secures to capitalists an equal rate of profit. Within a branch the price of production, in its capacity of a converted form of value, exercises a direct effect on production, on its level of technical development and organization. On the other hand, in its interbranch aspect, the price of production introduces changes only in the sphere of distribution, but not in the inner organization of production. It influences the scale of production only, because by regulating the inflow and outflow of capital in different branches and thus creating surpluses or shortages of certain commodities it produces a rise or a drop in the price of production relative to value.

But to what extent can this type of mechanism be used in socialist planning? Can the scale of

production of any given branch (with the exception of interchangeable branches) really be determined by anything other than the requirements for its output? Is it really admissible that the scale of any given branch of production in the national economy should increase merely because of differences in the organic composition of its production assets? It will suffice to ask this question to get an absolutely negative answer.

In order to plan the national economy correctly, society must "know how much labor will be needed for the production of each article of consumption." (15) The real social labor expenditures for the production of every type of commodity are expressed in its value. This gives special importance to the determination of value in a socialist society, i.e., to the accurate accounting of its real labor expenditures. The partisans of the "price of production" concept pose this question differently. L. Vaag and S. Zakharov speak of the necessity of evaluating "labor expenditures" and hold that the price of production is in fact a method of "evaluating labor expenditures." (16) This way of posing the question is fundamentally wrong. We know that labor has no value and therefore cannot be evaluated in any manner. Labor itself is the one and only measure of value. The labor theory of value is an integral part of the Marxist conception of dialectical materialism. Thus, posing the question of "the evaluation" of labor points to another direction. L. Vaag and S. Zakharov are making the logical error of "circulus vitiosus." On the basis of calculating real expenditures one can determine the effectiveness of these expenditures by comparing them with their results. But an attempt to "evaluate" expenditures on the basis of their effectiveness before calculating the results will eliminate the very basis for the solution of the problem.

Given the great diversity of economic phenomena and the problems involved in national economic planning, it is impossible to find a single universal method of solving all problems. Value, however, is the basis for solving them.

Only on the basis of value can one obtain a correct picture of the relationships of expenditures to the output of various products and of the relative labor productivity in the manufacture of a given product by different methods. But indicators of value alone will not suffice in determining the relative economy realized through various technical variants of production. It has been pointed out in the literature (and this is correctly stressed by L. Vaag, I. Malyshev, Z. Atlas and others) that in order to derive a more accurate estimation of economic effectiveness one must rely not only on the indicators of the relative value of out-

also on the indicators of expenditures of production assets per unit of output. This stems from the disparity between the magnitude of production assets consumed in the process of production and the magnitude of production assets which have been applied, especially fixed assets. Value reflects with great accuracy and completeness only the magnitude of the consumed assets, which corresponds to the real social expenditures of labor during the given production cycle. This is no way belittles the importance of value as the basis for all planning calculations. By supplementing the relative indicators of value with relative indicators of capital outlays, and by computing the coefficients of economic effectiveness, we are in a position to determine which technical variants of production are most effective, and how to procure on a national scale — with the given accumulation fund (the fund of capital outlays) — a maximum rise in labor productivity. In this way, only on the basis of value can one correctly determine economic effectiveness, taking into account both the higher labor productivity and the capital outlays required for this purpose. This, in turn, enables us to plan the attainment of the maximum economic effect for the national economy as a whole.

The introduction into economic analysis of indicators of expenditures of production assets in addition to indicators of value does not mean that value is rejected as a fundamental economic category, or that it should be transformed into some other category. In many fields of science, including economics, quite often the analysis of one factor is supplemented by the analysis of another, or even several others; this only enriches the final conclusions, especially when these factors and their results are commensurable (as is the case here). It allows that the suggestion to reject value and to replace it with some other categories, only because value is not a universal means of solving all problems, is groundless to say the least. Relative economic effectiveness can be accurately determined on the basis of value (by supplementing it with other relevant indicators) without resorting to the "evaluation of labor expenditures."

The substitution of various "evaluations" or prices of production for value deprives the latter of its essential significance as the expression of real expenditures of social labor. The summing of real labor expenditures with possible losses (?) of labor, or with surplus labor expended not in the production of the given commodity but in another branch, lends a rather arbitrary, almost mythical character to the "value" obtained in this way, and deprives it of real content; i.e., conformity with real labor expenditures.

It is also wrong to assume that the economic

effectiveness of outlays should have a direct and immediate bearing on their distribution among branches and, therefore, on the proportions of social production. (17)

The proportions of social production are determined by the structure of social consumption, by what has to be produced; the economic effectiveness of capital outlays determines how (by what production and technical methods) the needed commodities should be produced. The selection of the most economically effective variants in each branch of the economy is made on the basis of analyzing the relative economic effectiveness of different technical variants of production. Since the sum total of production assets needed to achieve the volume of production of a given type determined by social proportions may — depending on the selected variants — either increase or decrease, there may, as a result, be changes in the distribution of means of production among different branches. But this redistribution will not be due to the varying effectiveness of capital outlays in different branches. It will be an indirect and subsequent result of the selection of production variants differing in effectiveness within the bounds of each branch. The determination of the relative effectiveness of capital outlays may exert a direct effect on changes in output proportions and on the distribution of capital outlays only in branches producing interchangeable products.

A number of authors (L. Vaag, V. Novozhilov and others) allege that utilization of the formula $K_{ef} = \frac{C_1 - C_n}{K_n - K_1}$ amounts to actual recognition of the price of production, because this formula may be mathematically transformed into the formula $C_1 + K_{ef} \times K_n = C_n + K_{ef} \times K_n$, and the latter does not differ in any way from the price of production which is formulated: $C + P^1 \times K$.

However the similarity between these two formulas is purely superficial and formal. K_{ef} is essentially different from P^1 , because K_{ef} (the coefficient of effectiveness) expresses the ratio of savings in production costs to the capital outlays causing the savings, while P^1 (the rate of profit) is the ratio of surplus product to production assets (K). Thus the similarity is limited to the fact that both of these terms of the formulas are expressed in percentages of production assets. Moreover, the price of production is based on a uniform rate of profit P^1 in all branches; K_{ef} cannot be uniform — it is differentiated by branches. Finally, the very formula $C_1 + K_{ef} \times K$, although obtained through correct mathematical transformations, is economically untenable because one cannot sum qualitatively differing categories: while C (production costs) must express real expenditures of social labor,

K_{ef} represents a possible economy of expenditures, i.e., something essentially different qualitatively.

Ignoring the economic content of the formula leads to another paradoxical inference: the lower the production cost of product C, the greater is the magnitude of K_{ef} , and therefore the sum $C + K_{ef} \times K$ must either change insignificantly or remain constant in respect to changes in production cost. It follows that the index which must characterize changes in labor productivity resulting from technical progress (i.e., the sum $C + K_{ef} \times K$), will be either constant or show little change, since a decrease in C will produce an increase in $K_{ef} \times K$. All this convincingly demonstrates the untenable nature of the proposition identifying the price of production with the results of calculations of economic effectiveness on the basis of value.

Every socialist enterprise with an efficient cost accounting system based on the law of value has a material incentive to reduce costs of production to the utmost through improved technology and organization of production. But as Z. Atlas, I. Malyshev, L. Vaag and others correctly remark, the existing cost accounting indicators do not stimulate sufficiently a better utilization of production assets by every enterprise. The profitability indices used in assessing the operations of an enterprise only stimulate reductions in production costs, but fail to provide sufficient incentives for a more efficient use of fixed and circulating capital. This frequently leads to a freezing of national resources in uninstalled equipment, idle equipment, excessive stocks of raw materials, fuel, semifinished goods, etc.

By improving the system of cost accounting its shortcomings can and must be eliminated. To achieve this end it would be quite appropriate, as has already been suggested, to assess the operation of enterprises by means of profitability indices expressing the relation of profit to all production assets (active or idle) available to any given enterprise. The use of this index would have a stimulating effect not only on the reduction of production costs, but would also promote the more efficient utilization of production assets. To achieve this there is absolutely no need to change the theoretical foundations of value and price formation, or to introduce this index of profitability into sales prices. This problem, correctly posed, can be solved by modifying the system of cost accounting and introducing new and improved indices for reckoning its results.

We may examine another argument usually advanced in support of the price of production, namely that it is simple to determine. Is it true that the practical calculation of the price of production is

simpler and more feasible than the calculation of value? If it were actually impossible to calculate value, while on the other hand calculation of the price of production did not entail any difficulty, then this argument would have real practical significance for socialist planning. We hold, however, that this argument is untenable. From the viewpoint of calculation, the only thing that distinguishes the price of production from value is the method of determining the value of the surplus product — one of the three elements of the magnitude of both of them. It follows that in both cases it is necessary to actually calculate all three elements. In both cases it is necessary to calculate, in money terms, the value of the consumed production assets by means of successive recalculations resulting from successive adjustments of the value (or of the price of production) of output of branches manufacturing means of production. Calculation of the production assets in money terms at prices of production does not offer any advantage as compared with their calculation at value. In both methods one must assume that wages amount to v , i.e., to expenditures of necessary labor, and therefore in both methods we must accurately calculate both the total social wages fund and the total wage outlays in each branch for each type of product. To obtain an accurate idea of the magnitude v will require a number of important adjustments in the existing system of accounting. The difficulties arising here are equally great and surmountable in both methods of calculation. (18)

In either case it is equally necessary to calculate the value of the total social surplus product. To calculate it, it is necessary to determine the rate of surplus labor $\frac{m}{v}$ on the basis of the estimated sum total of social surplus product. Calculation of the value of individual products involves a number of difficulties even after the average rate of surplus labor has been determined for the whole society. The following question arises: can this average rate be applied to the actual wage outlays if wage rates are differentiated according to branches? This leads to the question of the possibility and desirability of differentiating the rates of surplus labor according to branches. (19)

But the calculation of prices of production gives rise to similar difficulties. The calculated sum total of the surplus product must provide the basis for determining the average rate of profit, in accordance with which the absolute magnitude of profit in the price of production of every type of product is calculated. But if the problem is to distribute the social surplus product in proportion to the production assets which, in the opinion of the partisans of this concept, are related to the creation

the surplus product, does it mean that this is applicable to the sum total of the surplus product? We know, the social surplus product consists of three basic parts: first, the part destined for the collective consumption of society and expended on social security, education, health, etc. (this part is distinct in principle from the necessary product; there are differences only in the way it is marketed and consumed); second, the part allocated for accumulation, i.e., for expanded reproduction; third, the part expended for state administration. The first part of the surplus product mentioned above cannot be related to the production assets, and in a consistent implementation of the concept of "price of production" it should not be distributed in proportion to production assets. This part is directly related to necessary labor and, it seems, should be distributed in proportion to expenditures on the latter. The partisans of "the price of production" hold that only the accumulated portion of the surplus product and, possibly, its second portion (not probably not all of it) should be distributed in proportion to production assets. This gives rise to an additional problem of requiring a more detailed calculation of the social surplus product and of its components. The rate of profit must be determined by relating a certain portion of the surplus product to the production assets. Hence, it is again necessary to solve an additional problem — one which does not arise in determining value — that of calculating the magnitude of fixed and circulating assets. Therefore one cannot agree with the contention that the practical calculation of the price of production is simpler and easier than the calculation of value, because as a rule in both cases it is necessary to determine the same initial magnitudes.

It follows from the above that the use of the price of production in a socialist economy does not conform to its nature and conflicts with the theoretical foundation of the economics of socialism. It cannot yield positive practical results for improving socialist planning. On the contrary, it may lead to negative consequences, because national economic proportions and economic effectiveness can be correctly determined only on the basis of value.

Footnotes

(1) "... After the abolition of the capitalist mode of production, but still retaining social production, the determination of value continues to prevail (*herrschend*) in the sense that the regulation of labor time and the distribution of social labor among various production groups, ultimately the

bookkeeping encompassing all this, become more essential than ever." (Karl Marx, *Capital*, Vol. III, 1954, p. 865 — Russian edition.) Marx pointed out that "even when exchange value disappears, labor time always remains the creative essence of wealth and the measure of the costs of its production." (Karl Marx, *Theories of Surplus Value*, Vol. III, Partizdat, 1936, p. 198 — Russian edition.)

(2) See I. S. Malyshev, *Obshchestvennyi uchet truda i tsena pri sotsializme*, Sotsekgiz, 1960; V. A. Sobol', *Ocherki po voprosam balansu narodnogo khoziaistva*, Gosstatizdat, 1960; the reports and comments of Z. V. Atlas, M. V. Kolganov, L. A. Vaag and others at the discussion at Moscow State University published in *Zakon stoimosti i ego rol' pri sotsializme*, Gosplanizdat, 1959.

(3) I. S. Malyshev holds that the price of production "concurrently solves the problem of effectiveness" and even totally eliminates this problem (p. 301).

(4) Karl Marx, *Capital*, Vol. III, p. 182.

(5) *ibid.*, p. 913 (our emphasis).

(6) Technical advance tends to increase differences in the technical structure and organic composition of production assets in various branches; simultaneously the differentiation in the length of the production period decreases due to its general decline. It should also be borne in mind that because of the low technical standard of transport prevailing at the time, and the predominant use of seasonal transport (fluvial, sleigh-roads), there were considerable differences in the conditions of hauling raw materials and supplies, and in marketing finished products; therefore the volume of necessary stocks of raw materials, supplies and commodities varied to a great extent in different branches.

(7) Karl Marx, *Capital*, Vol. III, p. 184.

(8) I. S. Malyshev asserts that the price of production "emerges when expanded reproduction becomes a law of development of production" (p. 231). And yet at the last and highest stage of capitalism, too, expanded reproduction is a "law governing the development of production." In spite of this, it is not the price of production which is dominant, but the monopoly price, i.e., a different modification of value.

(9) Marx pointed out that society's wealth and the possibility of its reproduction are determined not by the magnitude of surplus labor, but by the latter's productivity. He showed the difference and contradiction between the growth of labor productivity and surplus labor. The historical limitations of capitalism and one of its basic contradictions are indeed due to the fact that the law of the rising productive power of labor does not have absolute

significance under capitalism, because its law is primarily the obtaining of maximum profit.

(10) Thus a rise in labor productivity in consumer goods branches must lead to a rise in surplus labor in all production sectors, including the ones in which labor productivity has not changed. Hence, the growth of labor productivity and of the surplus product do not coincide within the bounds of separate branches, i.e., in the area where the product is manufactured.

(11) I. S. Malyshev writes that "in the branches better equipped with means of production, labor productivity is rising and, as a consequence, the volume of the surplus product (income for society) created by the same unit of living labor is increasing" (p. 255).

(12) Karl Marx, Capital, Vol. III, pp. 49-50.

(13) *ibid.*, p. 17.

(14) This is why labor productivity in metallurgy and the food industry, for instance, are incommensurable; there is not and cannot possibly be a common measure for the use values they produce. Marx wrote: "To speak of greater or lesser productivity in two different industrial branches is an absurdity," one can only compare "the rates of productivity increase in both branches." (Karl Marx, Theories of Surplus Value, Vol. II, Part I, p. 187.) Labor productivity is commensurable in different branches which produce different products which have the same destination, i.e., interchangeable use values, as for example, coal, petroleum and gas, if they are considered as fuel only.

(15) Friedrich Engels, Anti-Duhring, Gospolitizdat, 1957, p. 293.

(16) See article by L. Vaag and S. Zakharov, "On the Evaluation of Economies," Voprosy Ekonomiki, 1960, No. 7.

(17) Were the coefficient of economic effectiveness of capital outlays higher in the textile industry

than in metallurgy, this would by no means lead to the additional expansion of the textile industry to changes in the relative growth of these and other branches of the national economy.

(18) On the other hand, if the price of production is based on the thesis of the changing magnitude of surplus labor and the level of labor productivity in different branches in accordance with changes in extent to which labor is equipped with production assets, equal magnitudes of newly-created value ($v + m$) in different branches need not conform to equal outlays of labor. But in that case wages in different branches cannot conform to necessary labor, because if labor productivity in these branches is unequal there are varying amounts of surplus labor and the amount of necessary labor is bound to change too. We have no idea how to surmount this serious obstacle in the practical calculation of the price of production. At any rate this difficulty does not arise in the practical calculation of value in money terms.

(19) Calculation of that part of value concerned with determining expenditures of living labor ($v + m$) can be done in another way, one which helps to verify and correct the previously outlined method. For example, on the basis of the estimated newly-created value in the whole national economy, and on calculations of the actually expended man-hours of labor, it is possible to determine the average monetary equivalent of one average actually expended man-hour. This method involves a number of assumptions (whose effect on the results of the calculations may be reduced by means of a further elaboration of this method in the process of its practical application), but what is of paramount importance is that it enables us to verify and compare the results of calculations of value on the basis of any method of determining the magnitude of surplus labor.

Voprosy Ekonomiki, No. 3, 1960

V. BOEV:

Differential Rent and the Problem of Prices of Collective Farm Products

The reorganization of machine and tractor stations, the changes in the system of state procurements, and the improvement of accounting relations

between collective farms and the state through the application of uniform state purchase price differentiated according to climatic-economic zones,

re increased the role of economic methods in the development of the collective farm system and, in particular, the use of prices as instruments of the planned economy.

Under the new conditions of the industrial and technical servicing of the collective farms, the purchase prices have acquired new economic meaning. They exercise an increasing influence on the location and specialization of agriculture and are used to stimulate agricultural production and labor productivity.

Against this background it is easy to understand the current interest in problems involving price formation and, in particular, in differential rent as a major element in price formation in agriculture. Despite several discussions on problems of commodity production, rent and price formation, there are still considerable differences of opinion concerning the problem of differential rent under socialism. It would be wrong to say that there have been only a few studies of the rent. But to what practical use have the new studies on the formation and distribution of differential rent under socialism been put? What recommendations have the economic control agencies received to aid them in the correct appraisal and utilization of rental revenues? Unfortunately, there are still no applicable recommendations on the appraisal and utilization of rent, since substantiated quantitative indices of rent — indices taking account of the conditions of its formation — have not yet been worked out. Therefore, many of the references to the role of rent in current price formation are either incidental or too general and vague. The economist should not confine himself to general comments about the qualitative aspect of differential rent or differential income, the difference between social and individual value, especially since there is no general agreement as to the proper method of determining the social value of agricultural products under socialism. It is vital to find theoretically justified and practically feasible methods of redistributing extra revenues in the interests of the whole society, without violating the principle of material interest in the results of labor in individual economic units. In other words, our purpose should be to bring the protracted discussion of differential rent closer to the practical problems of socialist construction by placing emphasis on the quantitative and qualitative determination and utilization of extra revenues now and in the near future, with a view to equipping the planning agencies with specific recommendations. The application of these recommendations must ensure a rational redistribution of the revenues according to individual enterprises as a result of more favorable conditions of production. (1)

The solution of the exceptionally important problem of accurately assessing these revenue for individual branches and products in agriculture as a whole, and doing so in accordance with the climatic-economic zones and types of agricultural enterprises, must rely on a detailed structural analysis of not merely net income, but also of costs of production. This will contribute to a more correct appraisal of the differences in the conditions of production, in the various climatic-economic zones and for the different kinds of products, of the effect on socialist agriculture of a limited supply of the more fertile land, of the role of specialization as a factor levelling out the natural differences in the conditions of production, and of the regulating influence on the social value and price level of the relatively poor land, and so on.

These, as well as a number of other major problems, directly involve differential rent and its quantitative assessment; these problems are of major importance in improving the planning of agricultural production and price formation, in the utilization and improvement of material and moral stimuli to raise efficiency in crop production and cattle breeding and to increase labor productivity in the collective farms.

If we ignore the groundless claims that under socialism more favorable and less favorable conditions for agricultural production do not exist, it will become obvious that — following the reorganization of the machine and tractor stations, the changes in the system of procurements, and the introduction of uniform purchase prices — the correct fixing of zonal prices has become one of the most urgent problems in improving economic relations between the collective farms on the one hand, and the state on the other. The solution of this problem requires, above all, the active participation of collective farms and other socialist enterprises in the creation of national funds through the redistribution of their net incomes, provision of adequate conditions for the observance of the socialist principle of payment in accordance with work, and expanded economic reproduction in all collective farms. The correct establishment of zonal prices is all the more important since a number of new areas, which formerly produced grain and livestock products for their own needs only, will produce these commodities for market sale from 1961 onward, in accordance with the decisions of the January 1961 Plenary Meeting of the Party Central Committee.

The greater price differentiation according to climatic-economic zones is an objective sign of society's recognition that the natural factors of agricultural production affecting the results of the

collective farms' economic activity differ very widely.

The problem of the redistribution of collective farm incomes (extra revenues, first and foremost) can now be solved most effectively by differentiating prices in accordance with climatic-economic zones in combination with the taxation now in force. In the future the net income accruing in agriculture will probably be redistributed more effectively through the direct redistribution of profits, as is now the case at the state enterprises.

The establishment of purchase prices for agricultural produce according to the zonal principle is an advance in the theory and practice of price formation. It is the fullest and most effective use of this principle that is now important, for the general state of the collective farm economy and its involvement in national measures depend essentially on the correct solution of the problem of zonal price levels. This cannot be achieved unless the collective farms are able, in marketing their produce, to cover their production costs and receive net incomes sufficient to expand their production and contribution to the national funds. Let us consider, in the light of these objective requirements, the experience of applying the new purchase prices to the produce sold by the collective farms to the state.

The comparatively short period within which the new terms of sales have been in effect naturally precludes a conclusive appraisal of their influence on the economy of collective farms and the payments to collective farmers. But it is already obvious that the reorganization of machine and tractor stations, the changes in the system of procurements, and the application of uniform purchase prices differentiated according to climatic-economic zones has impressive economic advantages. These are manifested above all in higher agricultural output, a strengthening of the collective farms' material and technical facilities, a more rational distribution of incomes among the republics, districts and individual collective farms — depending on their share in the production of the national income — and the application of principles in fixing prices for collective farm output that are closer to those used in setting prices for the output of state enterprises.

In 1959, as a result of increases in output and higher purchase prices, collective farm cash receipts increased by 44% as compared with 1957 and came to 136.9 billion rubles (here and in the following the figures are given in the old price scale). In many collective farms cash receipts from the sale of produce and from other sources have enabled them to substantially increase the labor-payment and accumulation funds, let alone

compensate for higher production costs. Collective farms earmarked 16.8 billion rubles in 1957 and 33.3 billion rubles in 1959 to augment their non-distributable assets. In 1958 and 1959 collective farms spent 32 billion rubles to buy tractors, combines and other machines.

The new zonal prices have eliminated many of the drawbacks of the former system of multiple prices. With the abolition of premium rates and the establishment of uniform prices all collective farms were placed under similar conditions. This has had a positive effect on the economy of the collective farms, especially the lagging ones. If the influence of collective farm market prices, which are affected by supply and demand relations, is discounted, the income of any collective farm is determined not by the form of sale — as was the case prior to the reorganization of the machine and tractor stations and the system of procurements — but above all by the level of output and labor productivity, the quality of output and its production cost, i.e., factors essentially dependent on the organization of work and the initiative of collective farmers. The funds earmarked by the state for the procurement of agricultural products are now distributed among collective farms strictly in accordance with the quality and quantity of marketable produce sold to the state, which brings the principle of material incentives in the development of agricultural production into play more fully.

As shown by an analysis of the financial activity of collective farms, the differentiation of prices by climatic-economic zones — despite obvious advantages over the former system of zonal prices — has serious shortcomings since the principle of zonal prices, correct as this principle in itself may be, is not applied consistently. In a number of large zones the purchase prices now in force fail to fulfill even the functions performed prior to 1957 by the differentiated quotas of obligatory deliveries and payments in kind for the services of the machine and tractor stations. This is explained by the fact that when the procurements were changed and the new prices introduced, the question of zonal price differentiation did not receive adequate treatment. Yet the economic relations between the collective farms and the state being what they are, a firmly based system of price differentiation by zones and types of products is a major prerequisite for normal economic operations of collective farms and a principal instrument of extracting and redistributing differential rent.

The shortcomings of zonal prices are reflected in the discrepancy between production costs and the level of purchase prices in the republics and zones. Thus, in 1957 to 1959 the average product

st of one centner of grain was 68 rubles in the Volzhye areas and 29 rubles in the North Caucasus areas, while the state purchase price was 73 rubles in the first case and 58 rubles in the second; the production cost of one centner of grain amounted to 75 and 34 rubles in the Urals and Western Siberia respectively, while the purchase prices were 75 and 56 rubles. It should also be borne in mind that all our cost calculations are not based on strict bookkeeping accounts; they are estimates made with certain conventional allowances.

In 1959 the maximum differences in calculated price levels amounted to 30% for grain, 37% for sunflower, 36% for beef, 62% for pork, 42% for poultry meat, whereas differences in the production costs for these products — the principal factor in price formation — were characterized by the following ratios for the same areas: 1:4.5 for grain, 1:4 for sunflower, 1:1.7 for beef and pork, and 1:2.7 for poultry meat.

Zonal prices for grain, sugar beet, sunflower and livestock products cover too large areas and therefore do not make sufficient allowances for the conditions of production in large areas, let alone for individual groups of collective farms within them. Thus, zone IV for grain includes all areas of Western Siberia, zone VI includes 26 regions of the non-black earth center and the North West of the Russian Federation. With prices differentiated for such large zones it is difficult to take account of the objective difference in conditions of production and thus solve the problem of extracting rent in the necessary amounts. The use of uniform prices in such zones has resulted in great differences in the economy of collective farms and in payments for the collective farmers' work. This is borne out by the data below for 1958 and 1959 covering the Altai Territory, Omsk Region and Tyumen Region incorporated in zone IV.

	Altai Territory	Omsk Region	Tyumen Region
Cash receipts in rubles:			
per worker	8,100	6,400	5,200
per man-day	33.7	22.4	14.5
Share of income (in %):			
from crops	61.2	40.8	25.5
from cattle-breeding	34.9	54.2	68.8
Production per centner (in rubles):			
grain	23.0	33.0	66.0
milk	118.0	111.0	110.0
beef (live weight)	874.0	833.0	739.0
wool	2,891.0	4,252.0	4,275.0
Average profit yield per farm (in %)	49.7	24.8	3.8
Allocated to social funds per able-bodied person (in rubles)	1,562.0	1,786.0	1,288.0
Average evaluation of work-day unit (in rubles)	11.1	7.6	5.2

Situated mostly in steppe areas, the collective farms of the Altai Territory have well pronounced grain growing and cattle-breeding trends of economy, whereas the collective farms of Tyumen Region, located in forest-steppe and forest areas, have cattle-breeding as their chief activity. They received only one-fourth of their income from crop production in 1958 and 1959, whereas the corresponding figure for the Altai Territory is 61.2%. Because of differences in soil and climatic condi-

tions the production cost of one centner of grain amounted to 66 rubles in the collective farms of Tyumen Region and to 23 rubles in the collective farms of the Altai Territory.

The shortcomings of the zonal prices become particularly clear if we compare the data on costs of production and purchase prices in individual republics and regions (Krasnodar Territory is taken as 100) [see table on the top of the following page].

	Production cost per centner			Purchase price per centner		
	grain	milk	beef	grain	milk	beef
Ukrainian Republic	165	124	129	114	99	104
Belorussian Republics	536	139	157	132	122	114
Orlov Region	275	134	163	121	91	99
Mordovian Autonomous Republic	318	141	129	137	108	108
Kirov Region	328	133	114	127	112	108
Novosibirsk Region	182	106	108	103	96	112
Krasnoiarsk Territory	209	132	112	107	103	107
Irkutsk Region	171	129	112	100	100	114

The zonal prices are not adequate largely because there were no reliable data on the production expenditures of collective farms when these prices were worked out and proper account was not taken of the role of obligatory deliveries and payments for the service of machine and tractor stations as means of obtaining and redistributing a considerable portion of differential rent. This accounts for the changes in the level of incomes of the collective farms of certain zones following the reorganization of machine and tractor stations and the abolition of payments in kind: incomes of the collective farms of the non-black zone for which special rates of payments in kind had been in force became relatively lower, while incomes of the collective farms of the areas situated further south increased. The differentiation of zonal prices was influenced by excessively high expenditures on livestock products, by the varying relative importance of branches producing marketable products in the individual zones, as well as by the income level prevailing in collective farms in certain republics prior to 1958. The ultimate result is that with price differentiation being what it is, considerable differences have arisen in the profitability of collective farm production, especially between Southern and Northern areas, and between farms specializing in the production of technical, oil-bearing and melon crops, grapes, fruit and tea, on the one hand, and farms specializing in livestock products, on the other.

We cannot accept the opinion of some economists, Sh. Ia. Turetskii, for example, who claim that the differentiation of purchase prices for comparatively large zones "strengthens the collective farms' participation in the realization of differential rent and increases the stimulating role of prices." (2) Far from raising the role of prices, price differentiation for large zones actually lowers it.

Extending the boundaries of zones increases the number of collective farms which, either receive unjustifiably high incomes owing to better conditions of production, or prove to be handicapped economically. This is what the application of the new prices has shown.

The creation of excessively large zones without any intrazonal (provisional or permanent) price differentiation practically nullifies the possibility of lowering prices for many years, since this would inevitably harm a considerable number of collective farms operating under objectively inferior conditions of production. This cannot be ignored if we want prices to stimulate the growth of production instead of impeding it.

In demarcating zones and in determining the degree of zonal price differentiation, emphasis should be placed, it seems to us, not on extending the participation of collective farms in the realization of rent (especially differential rent I) — which would inevitably lead to sharper differences in the economic position of collective farms — but on the creation of normal economic conditions for the development of all collective farms conducting economic operations on a sound basis. It is the concern of the socialist society to enable all collective farms to expand their production, and this is impossible unless they receive a net income, over and above their production costs.

A superficial attitude toward demarcating zones leads to a faulty explanation of the significant differences in the level of profitability of large groups of collective farms within zones. With the zonal geography being what it is, these differences are certainly considerable, and simple explanations like the one suggested by G. Khudokormov do not meet the problem. According to G. Khudokormov "if the level of development of the socially owned

onomies of the collective farms in a particular zone differs from farm to farm, this is primarily a consequence of the varying organization of collective farm production which does not depend on differences in the natural fertility of the soil." (3) In the sharp differences noted above in the economic activity of the collective farms of Altai Territory and Tyumen Region, situated in the same zone, accounted for by different levels of organization of production alone, without taking into account the objective conditions of production? Surely, more conclusive arguments are needed to draw the above conclusion. This conclusion could not be correct unless the zones embraced districts with nearly identical natural conditions of production. It is only correct demarcation of zones, along with other economic measures, that can eliminate the unscientific appraisal of economic operations and the unjustifiable differences in the material rewards of groups of farms.

Inadequate differentiation of economic measures for certain areas and zones also means that many collective farms and collective farmers are not aware of any real relationship between an improvement in their work and their remuneration. This is certainly wrong. The revenues accruing to the collective farms as a result of more favorable conditions of production should be at the disposal of the state as the owner of the land. V. I. Lenin's statement on this is fully valid for a socialist society: "Nationalization means the transfer of all land to the ownership of the state. Ownership implies the right to the rent..." (4)

The problem of establishing economically sound zonal boundaries does not mean that there should be equal profitability of production for identical farms in the areas of their marketable production. On the contrary, improved zonal prices should provide for certain differences in profitability for individual zones and kinds of production so as to ensure the economic stimulation of rational specialization of production in accordance with the country's economic needs. It is obvious that the production of grain should bring the highest profit in grain areas, of raw cotton in the cotton areas, of sugar beet in the sugar beet areas, etc. In demarcating zones due account should be taken of the variety of relatively stable climatic and economic factors influencing the volume of output and production costs. These zones should include collective farms with highly identical conditions of production for the principal commodities. Within a zone allowance could be made for the possibility of applying premium or discount prices to individual areas and groups of collective farms operating under conditions significantly different from the zonal average,

provided it is impossible to have them specialize in other products. This is the only way to create the prerequisites for expanded economic reproduction in all collective farms, including those cultivating objectively less fertile land.

The demarcation of the principal zones and price differentiation for them should be established by central agencies. The right to establish smaller zones or subzones, and price differentiation for these (within prescribed procurement quotas and payments for products), should be vested in the republics. This will simplify the practical work on price formation, make it more flexible and specific, and heighten the initiative and responsibility of the local agencies for the economic development of all collective and state farms. Yet, no matter how detailed the differentiation is, zonal prices cannot ensure the adequate collection of the differential rent derived by certain collective farms due to differences in the conditions of production in the micro-districts and individual farms within a zone. For this purpose it would be necessary to establish individual prices for each collective farm, something that is unrealistic in the opinion of most economists. (5)

In addition to the improvement of zonal prices, other economic levers should be used to a fuller extent to achieve a more rational redistribution of rental and other incomes. In particular, it seems advisable, to introduce an income tax on the collective farms' net income. The motivation for this proposal is that an income tax, by its very nature, can only be part of net income. Tax rates should be differentiated depending on the profitability levels and economic positions of collective farms in the Union Republics, zones and districts. This readjustment will make it possible to absorb in the budget most of the extra revenues of groups of collective farms with more favorable conditions of production and will promote the economic progress of weak collective farms. At the same time it will make it unnecessary to resort to excessively minute price differentiation and will impart greater stability to prices, which is of major importance for correct planning and management and the consistent observance of the principle of material incentives.

According to the terms now in force when the agricultural produce sold by a collective farm to the state is delivered over a distance of up to 25 kilometers the cost of delivery is borne by the collective farm. The result is that the collective farms situated further from the point of sale — economically weak farms as a rule — spend from two to five times as much on the delivery of the same amount of commodities as those located closer to

the point of sale. (6) In this connection we would characterize as premature the statements of some economists (Turetskii, Markov (7) and others) that the establishment of premium purchase prices where goods must be transported over distances exceeding 25 kilometers will fully settle the problem of rent with respect to location. In our opinion this question cannot be regarded as settled unless all collective farms producing marketable output in accordance with the state procurement plans will have approximately the same economic conditions insofar as the sale of these commodities is concerned.

The volume of collective farm haulage being what it is, the system of delivery terms involves substantial differences in transportation costs, especially if we consider the fact that the more distant collective farms also incur heavier expenses in the shipment of machinery, spare parts, fuel, mineral fertilizers, building and other materials. All this places certain collective farms at a disadvantage and is evidence of unsatisfactory economic relations between collective farms and the state. To eliminate these defects in the terms of delivery, it is vital, in our opinion, to conduct the transactions in marketable output according to the free-at-collective-farm principle. In addition to improving the economic conditions of sale for all collective farms, this will bring closer together the principles of price formation for collective farms and state farms, since in the latter the prices are fixed on the free-at-state-farm principle.

Problems of price formation for livestock products deserve special attention. An analysis of the economic operations of collective farms shows that the purchase prices in a number of cases do not cover costs of production in collective farms. The reason for this is not a low level of purchase prices but too high production costs. The purchase prices now in effect have approached the retail prices, and even exceeded them in some cases. Therefore, livestock production can be made more profitable only by lowering costs in this branch. This can be done by: reducing the cost and improving the utilization of fodder, mechanizing labor-consuming work, and specializing more intensively in marketable livestock output according to climatic-economic zones, districts and individual farms.

Despite improvements in recent years in the location and specialization of production, quite a few collective and state farms have very costly diversified economies. This is reflected in their economic indices. Until recently most collective farms in the central non-black-earth zone and North-West had four or five livestock farm units each. Predominating were farm units with 90 to 140 head of

cattle, 200 to 300 sheep, 130 to 210 hogs, and poultry yards for 300 to 700 fowl. A considerable portion of the livestock on such farm units were located in several spots at fairly long distances from each other. Insufficient specialization and concentration has resulted in excessively high production costs for some commodities; these costs often exceed not only the purchase prices, but even the retail prices of some livestock products. Quite often the production of pork at a loss at a given collective farm is combined with the production of excessively dear beef, milk, wool, etc.

The trouble is chiefly that the extension and enlargement of collective farm production is not always accompanied by the reorganization of collective farm operations required to make full use of the advantages of large-scale production. Even in Krasnodar and Stavropol Territories, with all the necessary conditions for the development of large scale specialized operations, there is no adequate specialization and concentration in the production of many types of marketable products. (8)

There is another factor responsible for the present situation: the work done in recent years on improving the specialization and location of production has embraced certain zones and administrative areas, while enterprises, as the principal links of social production, have been involved to a lesser degree. Besides, the harmful practice of planning production and sales without properly taking account of local conditions and the possibilities of collective farms still exists in some areas.

Specialization, the basis of sound economic operations, has the advantage of permitting priority development of those branches which are capable of yielding — under the given conditions — the maximum output at the lowest cost. This will be of major importance in the years to come, since the state will buy products where they are the cheapest.

Rational specialization and concentration is not the only way of making livestock production more profitable. Yet it is perfectly obvious that one of the principal causes of high costs and low profitability here is insufficient specialization and concentration of production. Many collective farms fail to make full use of the vast advantages offered by large-scale agricultural production.

Some collective farms lower costs of livestock production by 50 to 100% within a short time, exclusively because of better organization on the farms, more efficient employment of man-power and more rational use of fodder. But other collective farms situated nearby, such as the Krupskaya Collective Farm and the Rossiia Collective Farm, Bezhet'sk District of Kalinin Region, operated livestock production at a loss in 1958 due to high costs

low productivity. The following data (in thousand rubles) show this:

	Krupskaia Collective Farm		Rossiia Collective Farm	
	1958	1959	1958	1959
Cattle	-313	-286	-263	+362
Pig raising	-182	-115	+8	+354
Sheep raising	-122	-150	+6	-46
Poultry raising	-3	-31	-21	-49
Total	-620	-582	-270	+621

In 1959 the loss from livestock production on the Krupskaia Collective Farm was almost the same as the previous year, whereas the Rossiia Collective Farm (with the same price level and with roughly the same conditions of production) received 100,000 rubles in profit, although sheep and poultry raising resulted in a loss of about 100,000 rubles. In one year the production cost of one centner of beef on this farm dropped from 884 to 430 rubles, in the case of pork from 724 to 560 rubles. This is the result of better fodder supply, reduced losses of cattle and improved labor accounting and management setting.

This example indicates once again that livestock production should not always be based on the costs prevailing over many years since the latter often repeat the former defects in the distribution and specialization of production, misuse of labor and technical resources, and other factors. Economists regard higher prices as the only method of eliminating losses in livestock production would do to bear this in mind.

Enough, the actual production costs should be ignored in planned price formation. Yet adjustments should be made in the actual costs if we want to evaluate the real outlays properly, for costs should be based on economically sound labor expenditures. Purchase prices based on the principle of compensating for any and all expenditures (without considering their socially necessary) would interfere with the proper combination of the interests of collective farms and the state, would weaken economic incentives to the growth of production. This runs counter to the role of prices under socialism. Therefore the correct

evaluation and thorough analysis of the costs of agricultural production are all the more important now. The further improvement of the price system is possible only if we have scientifically based standards of production costs and reliable factual data on labor and material expenditures in the production of each kind of product for the country as a whole, for geographic-climatic zones and principal types of farms.

The strict observance of the principle of uniform prices is a major prerequisite for improving price policy. Unfortunately, there have been statements recently designed to undermine one of the basic principles of price formation, the principle of uniform prices. Some economists justify this by referring to the need to increase the profitability of livestock production, while others cite the need to raise the material incentives of collective farms and collective farmers in overfulfilling the state purchase plans. (9)

The authors of these proposals fail to take account of the major changes which have occurred in the economic relations between the collective farms and the state, and indeed do not realize that with the level of purchase prices being so high at present the return to price multiplicity is out of the question. The principle of uniform zonal prices is one of the bases of genuinely scientific price formation. Ignoring this principle is tantamount to the rejection of the value basis of prices. The multiplicity of prices complicates the calculation of planned and actual expenditures, and precludes the possibility of an objective determination of the effectiveness of capital investments and the profitability of branches and products, not to mention the principle of equal pay for equal work.

For several years to come prices will have to be lowered only if the profitability of an economic unit as a whole is ensured, for there are large differences in profitability in the production of different items. Thus, the problem of price formation, which has usually been treated until recently for branches as a whole, should now be considered in relation to the sum total of economic indices for individual zones and areas. First of all, it seems to us that the prices of so-called super-profitable items should be changed by stages. The adjustment of these prices would be a major step toward a more sound distribution of differential rent stemming from more favorable conditions of production, and toward a better mechanism of distributing the net income created in agriculture. In the next few years the radical improvement of the fodder supply, the development of specialization and concentration, and the extensive application of mechanization and automation are bound to reduce costs per unit of

output to a considerable extent and consequently to raise the profitability of this branch. Livestock production will become as profitable as, or even more profitable than, the production of sunflower, cotton, long-fiber flax and grapes. The increasing productivity of labor and the resulting lower costs per unit of output will make it possible to lower the prices of meat, milk, wool and other items on a planned basis.

Many important questions on which the further improvement of economic relations between collective farms and the state ultimately depend have been solved by now. The principal task of the theory and practice of price formation, therefore, is to detect and eliminate the discrepancies between the objective price-forming factors and existing price levels through an analysis of all the determinants of price formation and, in particular, the influence on the latter of the natural conditions of production and through the quantitative determination of differential rent — in other words, through a comprehensive analysis of the collective farms' economic activities. This is all the more important since essential changes have been introduced into the terms of sale of industrial and agricultural products following the reorganization of machine and tractor stations, the changes in the system of procurements and the introduction of new purchase prices. At the same time we must emphasize that our proposals concerning the price system have nothing in common with the proposals to overcome the difficulties through raising purchase prices, in particular, prices of livestock products. On the contrary, a different course is required: a steady rise in the productivity of labor, a systematic reduction in costs, and on this basis a reduction in prices.

Footnotes

(1) This is all the more important since following the reorganization of machine and tractor stations and changes in the system of procurements, such forms of redistribution of income as differentiated rates of payment in kind and obligatory deliveries of produce to the state are no longer in effect.

(2) "Production Costs and Prices," in *Nauchnye Trudy MGEI*, Issue No. 17, 1959, page 117.

(3) *Voprosy Ekonomiki*, 1960, No. 10, p. 106.

(4) V. I. Lenin, *Collected Works*, Vol. 13, p. 308 (Russian Edition).

(5) An exception is Academician S. Strumilin, who believes that if zonal prices cannot extract all "excess profit" in a zone to an adequate extent, it is possible to establish for each farm taken separately, "on the basis of accounting records, such calculated or 'delivery' prices for the marketable

products of each collective farm as would fully correspond to the requirements of the above principle and the interests of the entire national economy. (*Voprosy Ekonomiki*, 1960, No. 7, p. 90.)

(6) For example, according to the uniform rate for automobile haulage the delivery of one ton of produce over a distance of up to 20 kilometers costs 22 rubles, while over a distance of up to 10 kilometers the cost is only 9 rubles. In 1958 the Williams Collective Farm, Podolsk District, Moscow Region, situated 4 kilometers from the point of sale, spent an average of 4.4 rubles on the delivery of one ton of potatoes sold to the state, while the Rossiia Collective Farm of the same district, situated 21 kilometers from the point of sale, spent 22 rubles.

(7) See *Voprosy Ekonomiki*, 1960, No. 11.

(8) In 1959 almost all collective and state farms of Krasnodar and Stavropol Territories, with few exceptions, produced marketable grain, oil-bearing crops, vegetables, fruit, grapes, milk, beef, pig, mutton, fowl, eggs, wool and other products. The result was high production costs, low profitability and even losses in some branches.

M. Anenko, Chairman of the Lenin Collective Farm, Kurganin District, Krasnodar Territory, believes that the principal cause impeding the development of the collective farms' economy is insufficient specialization. Speaking at the plenary meeting of the Party Territorial Committee in June 1960, he said: "The trouble is that the collective farm does not specialize in growing high-yield crops. We are asked to sow a little of everything. Formerly we sowed 32 crops, while the figure now is 57. Yet each crop calls for special knowledge and experience, and a certain range of agricultural machines and implements. Under such conditions it is difficult to have high yields and low production costs. Nor do we have sufficient specialization in livestock. The collective farms of our district would do best...to specialize...in sheep raising, while other districts have better conditions for sheep raising. And this is what we should go in for. This pays both for collective farms and the state." (*Sovetskaia Kuban*, June 10, 1960.)

(9) G. Lisitchkin defends the return to the rejected and outdated system of multiple prices in this way: "...It would be advisable for a collective farm to receive a substantial premium for above-plan sales in the form of a premium price for each centner of product sold over and above the state plan. A socialist enterprise which has overfulfilled the state plan has created an additional income thereby, and therefore has a special right to take part in its proportional distribution" (*Voprosy Ekonomiki*, 1960, No. 7, p. 67).

STRUMILIN

Differential Ground Rent Under Socialism

In a capitalist society the surplus value distributed among the ruling classes is divided in the main into the entrepreneur's profit and ground rent. Since under socialism these parasitic classes have been abolished, they no longer share in the distribution of the surplus product. Its totality remains in the hands of the new society of working people. Moreover, it stands to reason that the former social divisions which distinguished ground rent from the entrepreneur's profit vanish. As private ownership is abolished, absolute ground rent disappears altogether, while under the new conditions in which the law of value operates, profitability undergoes substantial changes.

For the sake of clarity let us compare the old conditions in which rent was formed in our country.

Under capitalism, it will be recalled, the law of "equal rates of profit and the resulting equal prices of production" were operative in our country. However, in capitalist agriculture market prices are regulated not by the average price of production of farm products on all cultivated tracts and, but by the price of production on the worst land. This is quite natural, of course, for the capitalist must obtain the average rate of profit on the worst tracts he leases or otherwise he would have no point in paying the ground rent to the landowner. The reason why this ground rent could be derived from even the worst land is that the organic composition of capital in agriculture (c:v) was in all cases much lower than the average in the national economy as a whole. Hence, the price of production of farm products (individual costs of production divided by the average rate of profit) even on the worst tracts of land was still below its labor value. Marx noted this excess of value of farm products over and above their individual price of production on the worst land as absolute ground rent. Private ownership of land enabled the landowner to appropriate a portion of value in the form of absolute ground rent even on the worst tracts, while on the more fertile tracts he obtained it in the form of differential, in which case the difference between the production cost and market price of the product varies in proportion to the higher quality of the land. Prices and large prices of production in capitalist agriculture deviate from the value for two reasons: moreover, in two directions. Because of the unequal organic composition of capital in agriculture

competition between capitalists brings the prices of farm products below the expenditures of past and living labor embodied in them. But as a result of private ownership of land and limitations on the available superior cultivated lands, the prices of farm products are regulated by the capitalists on the basis of labor expenditures on the worst land, and this raises the average prices of farm products on all types of land above the expenditures they embody, i.e., above their social value. In both cases it is the competition of capitalist entrepreneurs that plays a decisive part in this deviation of prices from value. The only difference is that in the first case it is the interbranch capitalist competition in the whole national economy that comes into play, while in the second it is the intra-branch competition on tracts of varying fertility and other qualities that determine their varying profitability.

Now, what is the over-all result of these conflicting trends?

To obtain a clearer idea of this with the aid of figures, let us ignore for the time being the rent forming factors within agriculture and let us try merely to assess the part played in price formation by interbranch competition of capitals operating in different branches of agriculture and industry. The organic composition of capital in industry is much higher than in agriculture; the best land is priced much higher than the worst. Moreover, in terms of 100 units of labor or of corresponding sizes of tracts, the former are several times more productive than the latter. This can be seen in the table below. We assume that the constant capital C makes a complete turnover in a ten-year period, and that the aggregate sum of the advanced investments $K=C+v=10c+v$. This being the case, the average rate of profit for the whole accounted capital will exceed 10.4%; but because of considerable fluctuations in the composition of this capital's elements under different conditions of production, and the difference between prices and value, we observe the redistribution of profit from agriculture to industrial branches (see table at the top of page 44).

In the grand total for both branches the sum total of prices of production is equal to the sum total

Table 1

Organic Composition of Capital and Prices of Production
(hypothetical figures)

Branches of labor and land tracts	Natural product P	Investment $K=C+v$	Value			Organic composition of capital $c:v$	Prices of Production			rate of profit $m_1:K$
			c	v	m		cost of production $c+v$	profit m_1	Total w_0	
Agriculture										
1. Worst tract	100	145	10	45	45	2.2	55	15	70	10.4
2. Average "	200	240	20	40	40	5.0	60	25	85	10.4
3. Best "	400	335	30	35	35	8.6	65	35	100	10.4
Total	700	720	60	120	120	5.0	180	75	255	10.4
Industry	—	1,290	120	90	90	13.3	210	135	345	10.4
Grand total	—	2,010	180	210	210	8.6	390	210	600	10.4

of values. Thus it would seem that the law of value is observed. However, out of 240 units of net agricultural product 45 units, or 18% of the farmers' labor, will shift in this process into the pockets of owners of industrial capital through the medium of prices. The major sacrifices in favor of this capital fall to the less fertile land tracts: 30 out of 90 units of net product on the worst lands, and 15 out of 80 on average land. On different tracts these sacrifices may be greater or smaller, but on the whole the law of prices of production operates everywhere in this particular direction.

On the other hand, whenever the interests of the capitalist class run counter to the class interests of the landlords' private ownership of land and of other owners of big estates, the prices of production are inadequate to satisfy these interests of land ownership. Taking advantage of their monopoly of property and the ground rent they have been collecting since the days of feudalism, by striking a bargain with the capitalists the landlords retain the possibility of turning over to the former out of their incomes not more than the average rate of profit on the advanced capital. But as can be seen from the above calculation, the prices of production on the worst land are indeed substantially below

the labor value of the product they yield. It is precisely out of this difference that the general fund of absolute rent is accumulated in any given country. It remains in the hands of the class of landowners who redistribute it among themselves in the proportion in which their total production may fluctuate. In the case under review, this fund, consisting of 45 units of value for 700 units of natural product, would be distributed as follows: about 6.4 units ($45 \times 100 : 700$) would fall to the first tract up to 13 ($45 \times 200 : 700$) to the second; and up to 26 units of absolute rent ($45 \times 400 : 700$) to the third tract. This is the first addition to prices of production in agriculture.

The price of the total production of the first tract including the absolute rent, will amount to $70 + 6.4 = 76.4$; of the second (in quantity of product), twice as much — up to 153 — and of the third, four times as much — up to 306 units. These totals also include the differential rent, which forms a second addition to the prices of production of farm products. These two additions, however, cannot under any circumstances affect the prices of production in industry. And yet a totally different picture of price formation results in both agriculture and industry when ground rent is included. It is very

characteristic that in this complete form, when ground rent additions are duly taken into account, social prices of production are already substantially at variance with the requirements of the law

of value, clearly revealing in their partial and grand totals that excess over and above value, which Marx defined in Capital as "the false social value."

Table 2

Social Prices of Production Including Ground Rent

Branches of labor and land tracts	Investment K	Value w	Costs of production c+v	Accumulations			Prices of production w_1	% of accumulations	
				profit m_1	ground rent				total $m_1+r+\Delta r$
					absolute r	differential Δr			
Agriculture									
Worst tract	145	100	55	15	6	0	21	76	14.5
Average "	240	100	60	25	13	55	93	153	38.8
Best "	335	100	65	35	26	180	241	306	72.0
Total	720	300	180	75	45	235	355	535	49.3
Industry	1,290	300	210	135	—	—	135	345	10.4
Grand total	2,010	600	390	210	45	235	490	880	24.4

When we compare the totals of both tables we find that the aggregate of prices of products in terms of market prices, with ground rent included, exceeds the sum total of their value, not only in industry but in agriculture as well. In practice this amounts to a decrease in the purchasing power of the monetary unit. In industry these prices exceeded value by only 15%, while in agriculture, with ground rent included, by 78%, i. e., several times as much. This amounts to a redistribution of real value, but in this case in favor of agriculture or, more exact, of the class of landowners. But taking into account the ground rent additions to the prices of production, it would seem that not only the law of value ceases to operate, but also the law of the general rate of profit, for when the general average rate of accumulation goes up from 10.4% to 24.4%, the partial rates of accumulation in certain branches and sectors (Table 2) fluctuate between 10.4 and 72.0%. When this is the case the gross product exceeds its value from 600 units of value to 880 units at market prices (an increment of 280 units), i. e., by almost 47%. This whole increment is entirely generated

by the funds of absolute and differential ground rent (45+235=280).

These funds do not contain any materialized labor. As simple additions over and above value, resulting from the conditions of the landowners' class monopoly of landed property, these funds in reality represent — in terms of the prices of this monopolistic origin — the very element which can be defined as false social value. Its magnitude is considerable. One should not forget, however, that this "false social value" is generated, according to Marx, in the market value by competition "on the basis of the capitalist mode of production," and that once this mode is abolished in a society organized "as a conscious and planned association" this false value will vanish. Not only the absolute, but the differential ground rent will also vanish. And with this, according to Marx, "the basis for a class of landowners will thus be destroyed." (1) Unquestionably Marx anticipated that under socialist conditions the products of the soil would become cheaper, their decline equalling the amount of "false social value" prevailing in the capitalist economy.

But now, after capitalism in the Soviet Union has long been defeated; when private ownership of land, together with the bourgeoisie and landowners no longer exist; when market competition of entrepreneurs has vanished with them, some Soviet economists are still battling for prices of production and differential rent in the USSR.

Since private ownership of land and of all other means of production has been abolished, the law of the equal rate of profit ceases to operate, and with it have vanished all factors generating ground rent. This is not due merely to the fact that since there are no landlords nobody can appropriate it. Once the law of the equal rate of profit is no longer operative, the very basis on which it arose vanishes. The average rate of profit no longer regulates the prices of production, and therefore the differences between these prices and value no longer have any grounds for materializing, differences which arose from different levels of composition of capital in various economic branches. Among other things, the excess of value over and above the price of production of farm products, which was appropriated by landowners in the form of absolute rent, vanishes too. It would obviously be senseless to equalize the prices of these products on the basis of the production cost in the worst conditions, now that all the land belongs to a single owner. And it would be nothing but utopian to attempt to achieve an equal "profitability" of all tracts of land in a single publicly owned economic unit.

In the absence of class exploitation of labor, all elements of surplus value, including ground rent, are eliminated under socialist conditions. The differential "profitability" of different tracts of land continues to exist, but differential rent no longer exists because average prices on all tracts of cultivated land are formed in conformity with the law of value, i. e., their deviations from individual expenditures of labor on different tracts mutually compensate each other.

This principle, which would seem to be indisputable, is categorically challenged by some Soviet economists. For example, A. I. Pashkov asserts that it is an "indisputable fact" that for the past fifteen years our specialized literature recognizes the opposite principle, i. e., the existence of the differential ground rent under socialism. (2) However, two pages later he makes a different statement: "Among Soviet economists, one fairly often hears the opinion that under socialism the magnitude of value of farm products is allegedly determined not by the worst tracts, but by the average..." and he goes on to acknowledge that under these circumstances differential rent "obviously cannot exist." Thus the "indisputable fact," on Pashkov's own admission, is "fairly often" challenged and becomes a moot point. Moreover, A. I. Pashkov asserts that differential ground rent exists under

socialism and that this is not due to the limited amount of superior lands: "A limited amount of superior land tracts will exist in the second phase of communism too — under complete communism — but differential rent will have vanished then." (3).

But what is the reason for its existence under socialism? A. I. Pashkov believes that it lies in the existence in socialist society of two forms of socialist property — state and collective farm property. If this is the case the following question naturally arises: What will remain of differential rent when collective farm property will be raised to the level of national property, even in socialist society, as a result of amalgamation of collective farms into a single economic organization? Here is what Pashkov replies: "Under these circumstances the value of farm products would be determined not by the worst conditions of production but by the average.... In this case differential rent would vanish." (4)

Another champion of differential rent under socialism, A. V. Bolgov, arrives at the same conclusion. Here is what he says on the subject: "Conversion of cooperative and collective farm property into general public property will signify the elimination of rental relations and, consequently, of differential ground rent itself." This rent is not generated in state farms. "Differential rent may be realized only in the process of sale of collective farm products." (5)

Let us assume that this is actually the case. Then the value of state farm products must be determined on the basis of average social costs of production, and in the collective farms on the basis of costs under the worst conditions of production. But since prices in commodity production are a monetary form of value, they cannot be altered for the same grain or milk merely because in one case they are produced by a state farm and in the other by a collective farm. On what basis, then, should they be planned in a socialist society? This is a rather abstruse problem.

Nevertheless let us assume that we can solve it by taking as a yardstick the value of collective farm products in the worst conditions of production. For this purpose it would be necessary to raise very considerably — and contrary to the law of value — the present-day prices of farm products above the level of actual expenditures of labor in agriculture as a whole. But since prices in industry are formed in conformity with the law of value, i. e., on the basis of average expenditures of socially necessary labor, such a non-equivalent exchange between town and country would inevitably generate conditions of exploitation which are totally intolerable in Soviet society. We must bear in mind that prices in our country are consciously planned, and no one would consciously permit a "false social value" to be incorporated in them, compelling the urban

king people to pay for it out of their wages. heretofore in practice we sinned rather in the opposite direction by depressing the prices of farm products. Even now, after the errors committed in this field have been remedied, the prices of products in the USSR are by no means excessive. This can best be illustrated by comparing them with the prices prevailing on the American market. It will be recalled that in 1959 the Soviet Union's gross agricultural product was 80% of the

United States level, but we had about 2.8 times as many individuals employed in agriculture, (6) which means that labor productivity in our state and collective farms was 3 to 3.5 times below that in American agriculture. This might lead to the conclusion that the prices of American farm products were no more than one third of Soviet prices. But as can be seen from the table below American prices are actually higher than ours.

Table 3

Market Value of Food Staples Consumed Per Capita Annually

Selection of food products	Unit	Annual consumption	Prices per unit			Value of selected staples		
			USA (1957)		USSR (1960)	USA (1957)		USSR (1960)
			in cents	in rubles		in dollars	in rubles	
White bread	kg.	183	41.2	4.12	1.9	75.4	754	348
Potatoes	"	114	12.1	1.21	1.0	13.8	138	114
Beef	"	63	192.0	19.20	10.0	120.9	1,209	630
Milk	liters	540	26.0	2.60	2.2	140.4	1,404	1,188
Eggs	units	350	4.2	0.42	0.7	14.7	147	245
Value of selected staples	—		—	—	—	365.2	3,652	2,525
per cent						—	100	69

The above totals show the comparative retail prices of crop and livestock products in the quantities and proportions planned in the USSR for the next few years and which can ensure adequate nutrition for the whole population. In converting American prices into Soviet currency, in order to avoid useless arguments we adopted the rate of exchange suggested by Vice President Nixon. At first glance this comparison leads to the rather unexpected conclusion that in spite of the high labor productivity in American agriculture, US farm products, rather than being one third as expensive as ours, are about 50% more expensive.

What is the reason of this "unexpected" result? The first obvious reason is that American agriculture is subject to the laws of capitalist economy including the law of prices of production and

their spontaneous "regulator" of costs of production on the worst lands. To a large extent this inflates prices in favor of landowners through the medium of elements of false social value — something that is ruled out under the socialist system. We can see that the prices of these products are much lower in the USSR. Evidently they no longer contain the elements of fictitious value which generate differential ground rent, and it follows therefore that they are unquestionably closer to the level of labor value.

On the other hand, in pre-capitalist countries with primitive natural economies there is no favorable soil for the development of these elements. Their full development can be observed only in the period of the rapid advance of and differentiation in capitalist technology and economics. In the conditions

of imperialism the elements of "false social value" in the prices of farm products of the leading countries grow to such an extent that they are faced with the competition of the cheaper food and raw material products of the colonial and semi-colonial ancillary countries. This rise in the prices of farm products in imperialist countries, accompanied by violations of all the requirements of the spontaneous law of value, evidently meets with its justified retribution in the deep and chronic agrarian crises of the kind that is now gripping the United States. Small farmers are ruined; well-to-do rentiers enrich themselves; and yet because of the lack of markets the volume of farm output remains unchanged for decades. Only ignorant or ill-intentioned people could recommend that a socialist economy use this method of raising the prices of farm products above the level of value. That is why this means of price formation is peremptorily rejected.

Let us turn now to another method. Let us assume that our yardstick for all prices in town and country is the law of value on the basis of average costs of reproduction, and an equivalent exchange between town and country. This does not rule out in the least the differential profitability of certain undertakings in both town and country and the corresponding redistribution of material values among various working collectives and undertakings. The attendant inconveniences are easily eliminated in the state sector. Workers in the best state enterprises receive equal pay for equal work irrespective of the differential profitability of these enterprises, while the latter's accumulations are turned over to a centralized fund and are redistributed in accordance with current economic plans. In the collective farms this cannot be done for the time being because each one of them is operated independently of the others. Thus, in some of them labor receives unjustifiably low returns, while in others, which cultivate the best land, there are excessive returns. This goes to show that this method, too, cannot be tolerated any longer in a socialist economy.

It should be pointed out, by the way, that fixing the prices of farm products on the basis of costs on the worst land would not in the least remove this inequality in the remuneration of collective farm labor on lands with different fertility, something that is altogether intolerable in our socialist economy. It would only increase the share of unearned income received by collective farmers cultivating the best lands. This method is totally unjustified in a socialist society. It is said that there is not enough high-quality land, and that in order to provide an incentive for entrepreneurs to cultivate inferior land, they should be guaranteed, in addition to the cost of production on the worst land, an average rate of profit on invested capital. But in the USSR the best lands in the virgin soil areas are not

yet all under cultivation and, moreover, the above reasoning implies the existence in a country of capital, capitalists and their free competition, and the resulting law of the average rate of profit, i. e., the existence of conditions altogether lacking in socialist countries. It follows that one must reject the demand for that additional "false social value" prevailing in the capitalist economy, a phenomenon which must arise out of conditions that no longer exist in our country.

Only the blind and the deaf do not know that in socialist enterprises there is no tendency to generate any kind of average rate of profit. Furthermore it is common knowledge that we have many enterprises yielding no profit and even operating at a loss, the latter being made good out of the accumulations of other enterprises or out of the state budget, which is a complete antithesis of the conditions prevailing under capitalism. The collective farm sector of agriculture has still less need of the average rate of profit.

One should not overlook the fact that our collective farms have been established without capitalists and big landowners. Nor did the wealthy farm operators, the greedy, dispossessed kulaks, have a hand in this undertaking. The collective farm membership consisted in the main of the medium and poor peasantry who, obviously, did not have any capital. Their meager chattels — wooden plows and second rate cattle — were their instruments of labor, which did not always provide them with a minimum subsistence. Gleb Uspenskii very aptly described these chattels, as distinct from capital, as a starvation grub-stake. What kind of "average rate of profit" could be expected with such a peasant economy? There is still less reason to expect it in socialist agriculture.

What argument is usually advanced to justify the necessity of including an average rate of profit on invested capital in the price of farm products, including those produced on the worst tracts of land over and above the normal costs of their cultivation? Is it suggested that failure to do so would leave these tracts uncultivated, thereby causing a shortage of farm products on the market, and that because of the laws governing the market the price would rise until investment in the worst lands would yield a sufficient return to make their cultivation worthwhile?

As we see, the leading personage in this picture is Mr. Capital and his armor-bearers — the capitalists who have long since vanished in the USSR. In our country altogether different personages and laws are at work. In the collective farms the dominant element is not the capitalist but the working people, and the eliminated law of the average rate of profit has been superseded by a new one — the law of socialist distribution according to work performed, not according to capital invested.

What are the requirements of this new law with respect to price formation on the worst land?

The requirements are clear enough and have been applied in Soviet practice. It requires that material expenditures on the worst lands, too, should be reduced, and that there should be a normal implementation of "equal pay for equal work" as for all working people. This last requirement is fully applicable to all categories of workers in collective and state farms. Further, it is common knowledge that wherever the "incomes" of the collective farmers are lower than the remuneration of farm workers, the former either desert their collective farm one by one, or collectively agree to the conversion of the poorer collective farms into private farms although this involves the loss of their private ownership of the means of production and of the privileges of collective farm democracy in the sphere of self-government.

Thus, there is no justification in the collective farm sector for any addition to the prices of farm products raised on the worst land, over and above the individual production cost. This is not supported either by theory or practice. No individual has the right to demand a special bonus for his unproductive labor on the worst tracts. And all accumulations over and above the outlays for remuneration of labor are generally regarded in socialist society as a public fund to be distributed according to specific regulations. In other words, in a planned economy the prices of farm and all other products, whether in state and collective farms, must be established in accordance with the law of value under average conditions of labor and production in the national economy.

Wherever this law is not strictly observed little can be expected. But agriculture is especially vulnerable to errors in price policy. In particular, a serious danger to our planning methods lies in the erroneous idea that the prices of all agricultural products should be determined on the basis of costs on the worst tracts of land. We have already pointed out that this would lead to a rise in the prices of farm products to several times their present level, which would exceed their actual labor value. We know that value is produced only by labor. If this is the case, what is the source of this excess of value over the actual expenditures of labor in agriculture? There are some economists who have gone so far as to explain its origin by referring to the distribution from industry and other sectors of the economy. But this would mean that workers in the city contribute their labor to the rural dwellers without getting an equivalent return. On the basis of this fallacy the Trotskyite demagogues succeeded in devising a theory of "primary socialist accumulation" at the expense of the countryside. One may rightly assume that if the countryside receives something extra from the urban centers, there

is no reason why the former should not be forced to return it to the latter. The fact of the matter is that the countryside has never exploited the towns. And yet as far back as 1923 the Trotskyites began to foster counter-revolutionary trends in the countryside by sharply altering the prices in a way that ran counter to the interests of the rural communities. Although this "error" was detected and rectified without delay, for many years, until 1953 as a matter of fact, industrial price indices invariably increased more rapidly than those of procurement and purchase prices of farm products, impeding thereby the expansion of the countryside's productive forces. Only in the past five or six years, following the rejection of this price policy, has agriculture been afforded the opportunity of developing at an unprecedented rate. However, even to this day the law of value is not rationally taken advantage of in our current planning.

Here is a case in point. As we know, in the past few years the selling prices of collective farm products have been radically revised. But while the prices of field husbandry products have been increased to an extent that brings them close to their value, thus making their production profitable, the prices of livestock products have lagged behind in many areas, in some cases even causing operation at a loss. If this price policy is to be viewed in the light of our plans for overtaking and exceeding US per capita production of meat and dairy products within a few years, one gets the impression that in planning these prices somebody made it his special business to subject our collective farmers to serious tribulations.

Quite obviously a deep sense of patriotism prompts them to win out as rapidly as possible in the contest with bourgeois America, but economic accounting and prices are threatening them with increasing losses at every step toward this victorious goal. It is likewise obvious that a rise in the prices of meat and dairy products, even if accompanied by some reduction in the excessive prices of field husbandry products, would reverse the situation. Patriotic sentiments would be reinforced by economic accounting, and this would speed up victory in the contest between the two economic systems. To achieve this, only one thing is needed — to make sure that planning always proceeds from the law of value and that the latter is not senselessly ignored as has been the case in the past.

A. I. Pashkov's insistent demand that differential rent should be incorporated in the prices of farm products is tantamount to planning prices on the basis of costs on the worst land, and here is how he argues his point: "Since the state is the sole landowner, it can make good the losses occurring on the worst tracts out of the profits made on the best." (7) Individual collective farms, with their group ownership of the means of production, are not in a

position to do this. And yet it is "necessary to refund the outlays of collective farms on the basis of average zonal conditions of production, the growth of labor productivity, the reduction of production costs of output, and the creation of the accumulations needed for expanded socialist reproduction." Here I have quoted a decision of the June 1958 Plenum of the Party Central Committee which is fully in keeping with our aims and is very timely. It is imperative that every Soviet economist should bear it in mind.

But does this decision mean that the collective farm system needs differential rent; that its weak links should be used as a yardstick; and that prices should be set so as to secure a high rate of profit even in the weakest sectors of that system? The answer is an emphatic no.

It is self-evident that expanded reproduction must be ensured in Soviet agriculture. But under socialist conditions it is altogether unnecessary to achieve this on every plot of land which may not be very suitable for cultivation. The collective farm system also needs accumulations. But the important thing is to ascertain on which tracts these accumulations should materialize; by what methods and in what proportions they should be attained; and for what purposes they should be allocated so that investments should be most effective. Under socialist conditions this problem must be solved by over-all centralized economic planning, not by separate decisions of each collective farm or by the spontaneous forces governing the market.

Comrades Bolgov, Pashkov and others are likely to retort:

"You forget that collective farms have the right to own their collective instruments of labor. Does this not imply the right to do as they please with the product of their labor?"

Then we shall ask them in turn:

"Has this right to ownership no limitations under socialist conditions? Are we to liken the membership of a working collective to a group of shareholders of a capitalist undertaking?"

When we say that collective farm property is socialist, by the same token we imply that the laws of socialist society are applicable to collective farms. All member of this society have the right to work and to enjoy the fruits of their labor to the extent to which they share in social production, but not more. Neither Pashkov nor Bolgov accept the theory that some fraction of value from other sectors of labor is redistributed in agriculture. But nevertheless the differential profitability of some collective farms remains a fact that has to be explained. How do they explain, for instance, the fact that in the Krasnodar Territory collective farmers get three or four times as much per unit of labor as their fellow farmers in Altai or in the North?

Like Pashkov, Bolgov attempts to explain this by

differences in labor productivity, i. e., by the unequal quality of different lands. (8) Indeed, Marx points out that when exceptionally productive labor operates as intensified labor "it creates in equal periods of time greater values than average social labor of the same kind." (9) But these differences in the quality of labor do not explain all the differences in its productivity on lands of varying fertility. Moreover, social value is determined by the outlays of abstract labor, i. e., with the latter already reduced to simple labor. And since this is what we are speaking of, it should be remembered that different fertility with equal outlays of simple labor does not create any additional value on the best lands, although it multiplies the mass of products in the form of use values per unit of labor embodied in them, and consequently increases the labor's productive capacity. These products do not directly influence the exchange value. And we concur with Marx in saying: "In other words the value of this mass of products does not depend on labor productivity." (10)

If, however, all other conditions being equal, a larger amount of exchange value is realized on the best lands than on the worst, the only reason for this is the redistribution of exchange value from the former in favor of the latter. In this case social production of the same kind of products on different tracts of land, whoever they may belong to, is regarded as a single process, and the commodities it yields are priced under socialist conditions independently of their individual value, at the same average market price, for in the eyes of the consumer they are all of equal value. But equal prices in conditions of unequal labor productivity bring about differential profitability in different economic units and working collectives. The excess of accumulations over and above the average rate ($m:v$) in some collective farms thus materializes because of insufficient accumulations in other less fertile lands. Although these extra accumulations cannot be described as differential ground rent, unquestionably they could give rise to unjustifiable inequalities, placing some collective farms at a disadvantage in the process of labor emulation on different sectors of the collective farm system thereby violating the socialist law of distribution according to work performed. However, in a planned economy there are many possibilities of entirely preventing or of reducing to a minimum any violations of this law, even with the existence of two forms of ownership of the means of production.

The first of these possibilities are the zonal procurement prices for farm products. By raising them in areas of poor fertility and lowering them in areas of higher fertility we equalize the rate of accumulation in all zones. This method has long been in use in our country, but until recently it was

er ineffective because the collective farms
d to keep even a rudimentary accounting of the
duction cost of their own output. Hence, the ad-
ment of zonal delivery prices to the level of the
l labor value of the products was an almost in-
ible problem, which explains why a number of
ss errors were made in the planning of corres-
ling prices. Today, on the other hand, with the
lgamation of the collective farms and the intro-
ion of a system of cash remuneration of labor,
problem is greatly simplified and new possibil-
exist for implementing the socialist law of
tribution according to work with respect to all
revenues of the collective farm system.

onal delivery and procurement prices cannot re-
promptly to local fluctuations in costs of pro-
ion on the district or individual collective farm
l. Hence, they can fulfill their function of being
ulators of accumulation only with a high degree
tolerance. However, this problem may be solved
far greater ease and accuracy if every collec-
farm keeps an exact accounting of the cost of
duction and individual values of its products.

ne collective farmers who cultivate the more
le or better located tracts of land cannot, under
socialist system, make an exclusive monopoly
these advantages. Nor can they claim the right
appropriate the extra income accruing on their
from specific soil, climate and geographic ad-
vantages, rather than from their own labor. In a
list economy, only society as a whole has the
t to decide how such extra income should be
l. Hence, the only thing to do is to apply this
inciple in a reasonable way to collective farms
ne same basis as it is applied to all other cost-
ounting enterprises and economic units. If the
l prices are still inadequate to fully implement
principle, this can be remedied by establishing
every individual collective farm, on the basis of
keeping records, accounting or "delivery"
es for their marketable output which would be in
ormity with the above principle and with the in-
sts of the national economy as a whole.

o achieve this it is imperative that delivery
es should fully cover the collective farm's in-
ual material outlays and its payments for labor
e rates prevailing on a national scale, adding
e individual production cost of output ($c+v$) a
ain share of accumulation (m), which should be
ated to each collective farm within the frame-
t of the general plan for use at its discretion.
extra accumulations in excess of this share
d be used for building up a special fund for the
irements of the whole collective farm system,
o a certain extent for allocations, through the
um of the state budget, to the funds of public
umption and for meeting other national exigen-

ne best and most efficient method of using such

special funds for the collective farm system is
still an open question which can be answered in
many different ways. It should be borne in mind,
of course, that the building up of such common col-
lective farm funds, even leaving aside the question
of the "collective farms' group ownership" of their
local non-distributable fixed assets, is bound to
lead to the accumulation — along with these assets
— of common collective farm property closely re-
sembling in character general public property,
which is something we consider as very desirable
and promising. Since we conceive of communism
as a union of self-governing associations, we are
inclined to view the collective farm system as a
multi-stage union with district or regional bodies
being combined on the republic or national levels.
This does not preclude in the least the autonomous
ownership of non-distributable assets by every bas-
ic association forming part of the system; on the
contrary, it presupposes such ownership if the as-
sociations are to be conceived of as autonomous
units. But the common interests of such autonomous
bodies will necessarily require the establishment,
within the framework of their constituent associa-
tions and in addition to the local funds, of common
inter-collective farm funds for such purposes as
insurance, the improvement of lagging associations,
reclamation, etc., covering entire regions or the
system as a whole.

Those economists who mistakenly believe that
collective farm incomes include differential rent
suggest that the latter should be transferred direct-
ly to the state budget. But in this case the state
would have to assume the burden of financing all the
collective farms whose costs are higher than the
social value of their product. Farms of this kind
are fairly numerous, which explains why many of
them are so willing to be incorporated into the state
farm system, in which any losses are made good by
state subsidies. This shows once again that con-
trary to the assertions of those who are advocating
differential rent in our country, our prices for farm
products are not planned on the basis of expendi-
tures on the worst land. This should be taken as
another warning against a policy of steering the
weaker collective farms, contrary to all principles
of sound economic accounting, along a cheerless
course of barely subsisting on subsidies, without
any hope of a better future, in the capacity of eter-
nal dependents and hangers-on of the state.

We hold that our collective farm system is sound
and strong enough not to need any crutches or props
in the form of subsidies which have such a demor-
alizing effect on human activity. Inasmuch as in
other sectors it is considered desirable and suit-
able to amalgamate small self-supporting enterpris-
es into larger units, why should it not be as desir-
able and suitable, in the process of building com-
munism, to view such a policy in agriculture as

reasonable and to amalgamate collective farms into powerful unions whose membership would be capable of aiding one another and of taking care of their own needs without any outside assistance? It is a foregone conclusion that unions of this type would find the ways and means of helping out their weaker members without resorting to state subsidies. Here it is appropriate to recall Lenin's views on the subject, views which unfortunately have been forgotten: "As a tiny islet in capitalist society, a cooperative is merely a small shop. If it encompasses the whole society, in which land is socialized and factories and mills are nationalized, a cooperative is socialism." (11)

Some people differ with this, namely certain economists who object to the conversion of the group property of the collective farms into common collective farm property on a national scale. They are in general opposed to a merger of the existing property of individual collective farms into a fund commonly owned by all the collective farms. They reject as undesirable and unsuitable the setting up by collective farm unions of their own supply and marketing agencies and other services, declaring that this would lead to "the appearance of superfluous intermediaries between collective farms and state agencies." A. I. Pashkov agrees with this view. He holds that "the suggestion to create such unions discounts the great role of the Soviet state in the general guidance of collective farm activities and in the establishment of economic relations between collective farms and state enterprises." (12) Is he implying that the amalgamation of the collective farms and Lenin's plan of socialist construction run counter to the interests of the Soviet state?

As Comrade Pashkov speculates on the prospects of the merger of the two existing forms of socialist property, which to his mind cannot be accomplished until the communist principle of distribution according to needs is realized, he does not seem to anticipate any concrete possibility of carrying this merger into effect. Here is what he says: "The creation of common collective farm property is not an inevitable stage in the process of raising collective farm and cooperative property to the status of general public property. Instead of speeding up the process of merging collective farm and cooperative property with general public property, this would be more likely to delay it." (13) Thus Comrade Pashkov holds that the cooperative system, which in Lenin's opinion should encompass the whole of society, will by no means bring us closer to communism, and his plans for building a communist society flatly reject it. With all due respect to A. I. Pashkov, I must say that Lenin's comments on this subject appear to me far more logical and authoritative than Comrade Pashkov's views.

To begin with I wish to challenge Pashkov's assertion that the non-distributable assets of the

collective farms are their group property. (14) The whole pattern of social relations is determined by one form of property or another. On the other hand, property is a juridical relation of juridical persons to their material objects. Since time immemorial the right of property has been defined by legal experts as the right not only of enjoyment (use) but also of disposal of the objects of this right — the jus utendi et abutendi of Roman law. This was the interpretation of the concept of property in slave, feudal and bourgeois societies, as distinct from the concepts "ownership" and "use" of any form of property. With respect to the private property of a citizen this interpretation holds good in our society too — property can be sold or given as a gift, in other words liquidated. The right of disposal of state property, including the means of production imported from abroad, is exercised by certain agencies of the socialist state, who are vested with special powers for this purpose. But should individual collective farms be allowed to dispose indiscriminately of their non-distributable assets? No, this right has not been given to them. They may use these assets and add to them out of their current revenue, but they have no right to sell them — even if the collective farm is dissolved — for the purpose of dividing the proceeds among their former membership. This means that the non-distributable collective farm assets, unlike the admission shares contributed by the membership upon joining a collective farm, are not the group property of these farms.

This is very important in many respects. Let us return, for instance, to the argument advanced by Comrade Pashkov in support of the assertion that differential rent exists in the USSR, and to his demand that the prices of collective farm products be based on the worst conditions of production. It holds that this is imperative because every collective farm conducts its operations independently of other farms, "with its own means of production, and the products of the collective farms are their property" and "society must also cover the costs on the worst land tracts" cultivated by these farms. (15) It follows that this applies to the group property of individual collective farms only, for in state land, which is general public property, differential rent does not arise.

Well, and what if the non-distributable assets are not the property of the collective farms, and if by their very nature they are indistinguishable from general public property? In that case they may be refunded in a different manner: they may be refunded to society as a whole, instead of to individual social groups who make use of these assets in their daily work. Collective farm non-distributable assets are inconceivable in any other form in a socialist economy. They cannot be considered as either collective farm or state property. Whose

erty are they in that case? It will be recalled the First All-Union Congress of Agricultural Activities, which convened in 1928, endorsed the following ruling: "The non-distributable assets remain under the complete control of the collective farms for the whole period of the latter's existence. Never a collective farm is dissolved, these assets are turned over to the common collective farm which is controlled by the unions of collective farms." (16) Thus even the collective farm funds of individual unions are not the latter's property; they are only "controlled" by them. Evidently, only when all the collective farms are integrated into a single national economic unit or in a general system of self-governing rural associations. In order to achieve a complete merger of the two existing forms of socialist property it will then only be necessary to incorporate into this system of self-governing subdivisions of national property the entire network of state farms.

Comrade Pashkov cautions us not to adopt this course, fearing that it would diminish the extremely important role played by the state in guiding collective farm activities. These misgivings are needless, for no modification in the collective farm system as suggested above is conceivable without active participation of the state in planning the scope and rate at which such changes should be carried out. At any rate there is reason to believe that sooner or later we shall adopt this course as part of the over-all task of further developing democratic centralism.

The validity of this Leninist principle has long been generally accepted in our country. In practice, however, in the years when the "personality cult" reigned, this principle was distorted; there were serious deviations toward undue centralism, excessive administrative interference, and other undesirable features. This had a particularly adverse effect on the collective farms, for they were much less closely supervised by their immediate superiors in the government machinery. That is now a thing of the past. The reforms carried out in recent years in the field of planning and management offer new opportunities of achieving a higher degree of democracy in local self-government and promoting public initiative in every locality. The development of the collective farm and cooperative system of agriculture is now viewed in a different light. While it was formerly assumed that this development would culminate in placing the collective farms approximately on the same footing as the state farms with respect to the organization of labor, the 21st Party Congress gave us a new directive, stating: "The merger of the collective farm and cooperative form of property with the general public form of property will be implemented in the future not by the gradual obliteration of

collective farm and cooperative property, but by raising its level of socialization to that of general public property with the aid and support of the socialist state."

This program of socialization of collective farm and cooperative agriculture evidently assumes a whole series of diverse measures. But bearing in mind the course mapped out by Lenin for converting tiny shop-like cooperatives into vast associations encompassing, under socialist conditions, the entire nation, it would be absurd to follow in A. I. Pashkov's footsteps and exclude from this program the most direct policy of large-scale amalgamation of collective farms up to a point where they will encompass all the general public property in agriculture.

It seems that some people are alarmed at the prospect of such an expansion of the collective farm system and of its functions. To their mind any independent activity of collective farm unions, even in procurement and marketing operations, is a very dangerous attempt to implant "a state within a state." And yet the only threat this involves is that of cutting down the number of redundant employees in state procurement agencies, and of replacing them by a more efficient autonomous collective farm organization, something that would obviously be to the advantage of the state budget. The forthcoming abolition of taxation will have as a concomitant the abolition of the tax department of the Ministry of Finance. There is no need to fear that this development is going to shake the foundations of the Soviet state. On the contrary, the might of the Soviet state in the world contest between the two competing economic systems will be strengthened in proportion to the growth of its economic potential.

It should not be difficult to understand that the collective farm system, as well as the trading system operated by the Tsentrosoiuz, are not political, but economic organizations. They do not compete with, but — like all other similar organizations — are controlled by central government agencies functioning within Soviet democracy. Consequently, every step taken to strengthen these economic bodies is bound to consolidate the economic foundations of this democracy. It is high time to realize that we have reached a stage in the development of our democracy when its state and administrative functions are being transferred one by one to public and economic organizations; and that as they increasingly lose their political and administrative character, they will assume, with time, the functions of a new economic democracy, a democracy of self-governing associations of working people and neighborhood communes.

In view of these trends which, as the decisions adopted by our Party indicate, will enjoy the full backing and support of the state, the future

development of the state farm sector must be considered from a new angle. Until recently it was always given priority over the collective farm sector. State farms are larger and have more machinery. They are all managed by the same central authority. It would seem that they embody socialism more consistently than the collective farms with their "group ownership" of the means of labor. But if we take into account the current drive for promoting a more extensive participation of the masses in the management of production, then the collective farms with their elected managements even have a certain advantage over the state farms with their administrative apparatus. The collective farms are more consistently putting into practice genuine government by the people, greatly outdistancing the state farm sector in this respect. The promotion of democracy in management is the common course to be followed by all socialist enterprises. Of course, care must be taken to avoid the syndicalist deviations which prevail in Yugoslavia, where an enterprise or economic unit managed by an association of working people is considered their group property, with all its implications.

Lenin warned us against errors of this kind. Here is what he wrote on the subject: "...Any direct or indirect legitimation of the workers' ownership of a factory, or of a professional group's ownership of their specific means of production, or of the power to weaken or impede the exercise of state authority, means complete rejection of socialism." (17) What applies to individual factories applies equally to individual collective farms. To define their right to the "non-distributable assets" as absolute group ownership would simply "legitimize" the totally groundless claims of richer collective farms to the right of realizing their production and accumulations in the capacity of proprietors, following the Yugoslav pattern in this. This would ignore the fact that under socialist conditions only the people as a whole, or the public agency it puts in charge of economic planning, can be regarded as the rightful owner of all the means of labor and public accumulation.

A shortcoming of the present-day organization of labor in the collective farm system is that its social labor productivity is not high enough. Granted that since the revolution it has increased by three to four times, it is nevertheless still below the US level. The Seven-Year-Plan envisages a doubling of labor productivity, which assumes a release from the farms of at least 12 million workers. Because of the scattered state of the collective farms, this will not be easy to achieve. A factor that adds to the complexity of the problem is that it will be particularly difficult to recruit these labor reserves from the more prosperous collective farms where the surplus labor force is particularly large and is bound to expand still more. The richer the

collective farm, the less the economic incentive and inclinations of its members to leave it and seek work elsewhere. Since the members of the collective farm feel that they are its "proprietors," not its employees, they know that nobody can recruit them under a redistribution program designed to shift the labor force to the sector that needs them most; hence, these collective farmers are willing to putter around the farm or their household plot without accomplishing any real work. Meanwhile the number of tractors and harvester combines is steadily increasing, but the number of proprietors in the collective farm system is not shrinking.

The danger which this situation creates is quite apparent. In order to equal US labor productivity in agriculture within 10 to 15 years, we shall have to transfer, if my computations are correct, some 20 to 30 million workers from agriculture to other branches of production, and with their families the total figure is about three times as great. This will require a huge resettlement program. One can well imagine the extent to which this potential surplus labor force in the collective farms impedes the increase in labor productivity which could be achieved in that sector. What should be done to resolve this problem as swiftly as possible? I believe that, to begin with, we should introduce with greater determination cash remuneration of labor in the collective farm sector on the same principle and at the same rates as in other branches of production. Furthermore, since their scattered state would not permit the poorer collective farms to put this measure into effect, it is imperative to merge them now, not in the distant future, into powerful territorial unions to which the collective farm system as a whole would be quite capable of granting loans on future crops and of extending other forms of mutual assistance which would ensure the timely payment of guaranteed wages to all collective farmers.

But this is not enough. It is high time that this system should be converted from a strictly agrarian one into an agrarian-industrial one. It should build its own plants for the primary processing of soil products, such as flour mills, bakeries, slaughter-houses, creameries and oil-mills, canneries and sugar-mills, plants for the processing of flax, cotton and other types of local raw materials. At the same time, as conditions in the rural communities are being brought up to the level of those prevailing in the towns, it will be necessary to launch a huge program of industrial, housing, cultural and community development in the countryside. This means that the collective farmers will have to produce their own building materials — bricks, cement, etc. Unquestionably this industrialization program should be carried out by collective farm organizations, for they have a more direct interest in it than any other body. But it stands

on that only powerful collective farm unions will be in a position to cope with this task. Once we come into being the redistribution of the surplus-labor force within the framework of the amalgamated collective farms will be implemented with greater ease, all the more so because in such large scale association all syndicalist illusions and every individual collective farm is the proprietary of all its means of production and accumulations are bound to disappear.

Once we have a collective farm body which encompasses the whole of society, it is utterly impossible to define its possessions as group property. Unfortunately the term group property is still currently applied in our country to collective farm possessions, although this definition is a fallacy. The misuse of this term leads to the confusion of entirely different concepts and the unjustified claims of the alleged "proprietors." It has already been pointed out that the concept of group property is not applicable even to the so-called non-distributable assets or basic means of collective farm production. It is still less applicable to the land fund which was nationalized in our country at the very start of the socialist revolution. Within the framework of the whole socialist sector of the collective farm system these funds are socialist property, which means that they belong to the whole of society. Land belongs to the whole nation — it is general social property. Recognition of this fact leads to important conclusions regarding the possibility of the existence of ground rent in the USSR.

Let us recall the prerequisites for the "transformation of surplus profit into ground rent" set forth by Marx in Capital. The first of these is that "the capitalist mode of production has encompassed agriculture," which implies the existence of "free competition among capitals, the possibility of transferring the latter from one production sphere to another, and a uniform rate of average profit, etc." According to Marx this mode of production in agriculture "presupposes the expropriation of the rural producers from their land and their subordination to the capitalist, who carries on agriculture for the sake of profit." (18) But the chief prerequisite for ground rent, among others, is landed property held in the form of a monopoly of certain individuals who control it to the exclusion of all others, which, generally speaking, presupposes the existence of a class of landlords in addition to the class of capitalists. This is the way Marx puts it: "What is the specific form of rent may be, all types have in common: the appropriation of rent is an economic form in which landed property is realized, and ground rent, in turn, presupposes the existence of landed property." (19)

None of these prerequisites exist in the USSR in the state or collective farm sectors of its socialist economy. Nobody can discover in the

collective farms either free competition of "capitals" or the possibility of transferring them into other production spheres. And the chief thing is that landed property is contrary to their character, which means that in the absence of this indispensable prerequisite, the existence of any type of ground rent is ruled out. This may be ignored only by those economists who all too easily confuse the concepts of property, tenure, and use, and other related though distinct categories of economics and law, which results in rather dubious observations and erroneous conclusions.

A. I. Pashkov, too, understands the harm caused by such confusion when he refers to those of his colleagues who, in his words, "confuse" such distinct concepts as the value and the price of agricultural products. (20) It is only to be regretted that while Pashkov reproves others for this confusion, he sins in the same direction himself. On the one hand, he challenges the assertions of his opponents that in our country the value of agricultural products is determined not by the worst, but by average land; on the other hand, he asserts rather categorically — and refers here to Marx's theory of rent — that under both capitalist and socialist conditions the "value" of these products is determined by the "expenditures of labor on the worst tracts of land," and "the price of agricultural products is determined by their value." (21) He takes it for granted that this is common knowledge. But in reality Marx's theory states that the "selling prices" of these products are determined not by value, but by the individual price of production on the worst land. (22) Lenin offered exactly the same solution to this problem in capitalist conditions. Arguing with the "critics of Marx," he stated: "The price of grain is determined by the price of production on the worst land..." (23) No mention of value is made in this case. It is rather curious that A. I. Pashkov quotes this passage from Lenin in his article. (24) Nevertheless in his comments he repeatedly substitutes the term value for the quite distinct term "price of production" and fails to realize that he has gone a bit astray by confusing these prices with value.

There is obviously no valid reason why we should borrow from the capitalist system such categories as the price of production and use them in Soviet conditions. The Soviet practice of price formation has avoided the system of prices of production, although some economists are stubbornly advocating this course. These economists hold that the chief argument against prices which conform to the law of value in Soviet conditions is that they do not adequately reflect the effectiveness of investments through their growing profitability, which is measured by the rate of profit.

Is that really the case?

In order to get a clearer idea of the essence of

this controversy we must turn once again to an example illustrating the evaluation of collective farm output under conditions of increasing capital equipment and labor productivity. Since we are convinced that the best indicator of the effectiveness of investments is not the rate of profit but comparative productivity, we compare various types of price-formation systems in collective farms classified according to their labor productivity. The output of the collective farms per 100 labor units (living and past)

increases in terms of natural units, — output of grain, for instance, by 2.64 times — while the capital funds increase 2.3 times (335:145). Hence, in this case the effectiveness of investments unquestionably increases as we go from the lower category to the higher category of farms. This is quite natural inasmuch as even identical machines are more efficient on the best soil than on the worst. Now let us see how the other indicators change.

Table 4

Classification of Collective Farms According to Labor Productivity

Indicators	Categories of Collective Farms					I-V
	I	II	III	IV	V	
1. Collective farm output (P)	100	141	182	223	264	910
2. Outlays of labor ($t=t_1+t_2$)	100	100	100	100	100	500
3. Capital investments (K-C+v)	145	192.5	240	287.5	335	1,200
4. Costs of production:						
(a) material (c)	10	15	20	25	30	100
(b) labor (v)	45	42.5	40	37.5	35	200
Production costs (c+v)	55	57.5	60	62.5	65	300
5. Product for society (m)	45	42.5	40	37.5	35	200
6. Individual value (W_1)	100	100	100	100	100	500
7. Social value (W_0)	55	77.5	100	122.5	145	500
Same in %	100	141	182	223	264	—
8. Realized accumulation $m_1=W_0-(c+v)$	0	20	40	60	80	200
Same in % of K	0	10.4	16.7	20.9	23.9	16.7
9. Price of production (Pr)	79	89.5	100	110.5	121	500
10. Profit at this price $m_2=Pr-(c+v)$	24	32	40	48	56	200
Rate of profit ($m_2:K$)100	16.7	16.7	16.7	16.7	16.7	16.7

productivity grows, the structure of costs undergoes considerable modifications. The proportion of material outlays increases while wage costs decrease. As a result the share of the product for living labor (m) also decreases from 45 to 35% of the total value of the product (W_1) on the best land. This, too, is altogether natural, for the new value created by living labor only, and where less of capital is expended, less new value is created. But the advocates of prices of production are totally unable to understand this. And they are saying indignantly: "What incentive shall we have to make greater investments if these extra investments will not 'yield' in the shape of additional accumulations?"

Kind of price policy gives a premium in the form of a high rate of profit only to the economic units with less capital equipment, i.e., the ones which are technically more backward. This policy is not technical progress!

It is pathetic and thoughtless indignation is premature, to say the least. It is common knowledge that the investment of funds is "recouped" through depreciation charges, not through accumulations, and investment does not require double compensation. Moreover, in accordance with the law of value, prices are regulated not by the individual but by the social value (W_0), which, as shown in the table, grows at the same rate as labor productivity. However, the rate of profit, given prices which depart from the law of value, grows at still higher rate — from 0 to 23.9%. Thus, if the law of value is adhered to, accumulations act as a very strong stimulant to technical progress. This being the case, wherein lies the error of the advocates of prices of production?

They do not distinguish between such distinct concepts as the individual and the social value of a product. This confusion prompts them to devise artificial patterns of price formation, patterns which depart with their own aims. They would like to use the rate of profit as a reliable yardstick for the effectiveness of capital investments. But when they have redistributed accumulations on the basis of prices of production, they obtain the same effectiveness (16.7% in our table) in all categories of economic units with obviously different productivity, and thus they are deprived of the possibility of measuring anything with this yardstick.

They regard prices of production as means for accelerating technical progress by offering the promise of high rates of accumulation to the best units and economic units. But as our table shows, the prices they suggest (Pr) are higher than the social value of the product in the most backward category of collective farms, and substantially lower than in the top category, which gives a premium in the form of a higher rate of profit to backward units and farm methods, and imposes a fine on advanced methods by reducing the rate of profit.

In other words, their desire to stimulate technical progress by means of prices of production can only lead to a considerable slowing down of that process.

It should also be borne in mind that when similar products are produced by enterprises with unequal amounts of capital equipment and labor productivity, the prices of production do not coincide with the social value of the products and, therefore, there is little likelihood that the latter will be fully realized in all categories of economic units. Table 4 clearly shows that if the social value of a unit of a given product $W_0:P$ is equal to 0.55 units — let us say 55 kopeks per kilogram of grain — the prices of production ($Pr:P$) in all categories of collective farms, calculated for the same categories, will fluctuate from 79 kopeks per kilogram in category I to 46 kopeks in category V.

It is perfectly obvious that this pattern of prices is artificial. It need not be doubted that the market will level out such prices for the consumer, making them approach the average rate. Even the advocates of the prices of production are not trying to establish such variegated prices for one and the same commodity. But there is no getting away from facts. It is either variegated prices, or average prices fully coinciding with value. In the latter case the prices of production, which are absolutely unacceptable in our economy, will be completely eliminated.

This, of course, does not rule out the differential profitability of enterprises in general, and collective farms in particular, in the Soviet economy. Prices based on the social value of the product are bound to raise the profitability of the advanced enterprises at the expense of the more backward ones. Under socialist conditions, however, this does not exclude distribution according to work performed of all the goods created by society. The only thing that is excluded is the "false social value" in our agriculture known under the name of absolute and differential ground rent.

Footnotes

(1) Karl Marx, Capital, Vol. III, 1954, p. 674, (Russian edition).

(2) See the collection of articles Voprosy ekonomiki, planirovaniia i statistiki, USSR Academy of Sciences Publishing House, 1957, p. 92.

(3) ibid., pp. 93-94.

(4) Zemel'naia renta v sotsialisticheskom sel'skom khoziaistve, Gosplanizdat, 1959, p. 31.

(5) Voprosy Ekonomiki, 1960, No. 5, pp. 102, 104.

(6) Voprosy Ekonomiki, 1960, No. 4, pp. 114, 115.

(7) Zemel'naia renta v sotsialisticheskom sel'skom khoziaistve, p. 31.

(8) See Voprosy Ekonomiki, 1960, No. 5, p. 98; Zemel'naia renta v sotsialisticheskom sel'skom khoziaistve, p. 39.

CENTRAL STATISTICAL ADMINISTRATION OF THE
COUNCIL OF MINISTERS OF THE USSR

Results of Fulfillment of the State Plan of Development of the National Economy of the USSR in the First Half of 1961

Carrying out the magnificent tasks of the Seven-Year Plan set by the 21st Congress of the Communist Party and having started a nation-wide socialist competition in honor of the forthcoming 22nd Congress of the Communist Party, the working people of the Soviet Union achieved fresh successes in the development of the economy and in raising the people's welfare and cultural level in the first half of 1961.

I Industry

Workers in industry fulfilled ahead of schedule the plan for the first half of the year in over-all industrial output and in the output of pig iron, steel, many types of non-ferrous metals and products of the engineering industry, electricity, oil, coal, iron ore, mineral fertilizers, soda ash and caustic soda, automobile tires, artificial and synthetic fibers, synthetic resins and plastics, prefabricated reinforced concrete structural units and parts, fabrics, knitted goods, furniture, dairy products, vegetable oil, canned foods; the fishery plan and plans for the manufacture of a number of other goods were also fulfilled ahead of schedule.

The six-month plan for the output of industrial goods was fulfilled by 102%. As compared to the first half of last year, the volume of industrial production increased by 8.4 % and the average daily output increased by 9%.

During the first 2 1/2 years of the seven-year period 15 billion rubles' worth of industrial goods were manufactured over and above what was envisaged for this period by the Seven-Year Plan. During the 2 1/2 years of the Seven-Year Plan the same amount of industrial goods was produced, in comparable prices, as for the entire fifth five-year plan period (1951-1955).

The six-month plan for industrial output as a whole and for many major items of production has been overfulfilled by all Union Republics and by the majority of economic councils. The plan was not

fulfilled by the Arkhangelsk, Tiumen, Komi, Cheljabinsk, Vologda, Kirov, Altai and Dnepropetrovsk economic councils.

The output in individual branches of industry increased as compared with the first half of last year as follows: ferrous and non-ferrous metallurgical industries — by 10%; fuel and power generation — by 7%; engineering and metal working — by 16%; chemical industry — by 14%; building materials industry — by 13%; timber, paper and wood working industries — by 4%; light industry — by food industry — by 6%.

The following figures show the output of the main items of industrial production in the first half of 1961:

	Produced in the first half of 1961	First half 1961 in % the first half of 1960
Pig iron (million tons)	25.0	109
Steel (million tons)	34.9	109
Rolled metal (million tons)	27.2	108
Steel tubing (million tons)	3.1	110
Iron ore (million tons)	57.3	111
Oil (million tons)	79.7	113
Gas (billion cubic meters)	28.8	128
Coal (million tons), including:	255	99
Coking coal (million tons)	55.5	102
Electric power (bil- lion kilowatt hours)	157	109
Mineral fertilizers (mil- lion tons)	7.6	112
Sulphuric acid (million tons)	2.8	105
Artificial and synthet- ic fibers (thousand tons)	121	122

	Produced in the first half of 1961	First half of 1961 in % of the first half of 1960		Produced in the first half of 1961	First half of 1961 in % of the first half of 1960
r tires (millions)	9.2	110	timber delivered by collective farms)		
ines (million kilo- tt hours)	4.7	103	(million cubic meters)	129	97
rators for tur-			Paper (thousand tons)	1,258	106
es (million kilo- tt hours)	4.3	119	Cement (million tons)	24.3	112
electric motors			Prefabricated reinforced concrete structural units and parts (mil- lion cubic meters)	18	123
illion kilowatt hours)	10.8	114	Slate (billions — in terms of conventional slabs)	1.7	115
ric vacuum appar-	72.1	116	Soft roofing (million square meters)	385	105
s (millions)	81.3	107	Window glass (million square meters)	72	103
l-cutting machine-	14.8	99	Cotton textiles (billion square meters)	2.4	99
ls (thousands)	619	120	Woolen textiles (million square meters)	224	103
e and press ma-	112	102	Linen textiles (million square meters)	255	97
ines (thousands)	52.9	114	Silk textiles (million square meters)	341	100.7
uments (million oles)	118	113	Knitted undergarments (millions)	243	103
llurgical equipment	10	120	Knitted outer garments (millions)	58	105
ousand tons)	721	116	Leather footwear (mil- lion pairs)	220	105
quipment (thousand s)	262	126	Watches and clocks (millions)	13.1	103
ical equipment	339	119	Radios and radio-phono- graphs (millions)	2.1	103
illion rubles)	275	107	Television sets (thou- sands)	934	117
ring looms (thou- nds)	202	107	Domestic refrigerators (thousands)	326	127
line diesel loco-	73	108	Domestic washing machines (thousands)	583	141
tives	132	111	Sewing machines (millions)	1.6	107
line electric	451	128	Motorcycles and motor scooters (thousands)	287	107
omotives	72	89	Bicycles and motor bi- cycles (thousands)	1,441	107
eybuses	71.6	131	Furniture (million rubles)	619	116
r vehicles (thou- nds),	46.2	103	Meat (excluding collective farm and individual household production) (million tons)	1.3	93
cluding:	36.5	130	Sausage (thousand tons)	582	94
cks and buses	46.6	107	Fish and sea animals (million tons)	2.1	110
ousands)	4.8	57	Butter (excluding		
torcars (thousands)	7.4	129			
tors (thousands of ysical units)	1.8	116			
n machines (million oles)					
tor-drawn plows					
ousands)					
tor-drawn seeders					
ousands)					
tor-drawn cultivators					
ousands)					
a harvester combines					
ousands)					
tor drawn mowers					
ousands)					
a cleaners (thousands)					
yators (thousands)					
graders (thousands)					
ery of commercial					
ber (excluding					

	Produced in the first half of 1961	First half of 1961 in % of the first half of 1960
collective farm and individual house- hold production) (thousand tons)	338	110
Milk, cheese and other dairy products calculated in units of milk (million tons)	4.5	108
Vegetable oil (excluding collective farm and individual household production) (million tons)	843	114
Canned food (industry under economic councils and local Soviets) (billion tins)	1.4	116
Soap (thousand tons)	766	99

There has been a considerable increase in the output of heavy industry. As compared to the first half of the past year, output increased as follows: pig iron by 2.1 million tons; steel by 2.8 million tons; rolled metal by 2 million tons; steel pipes by 293,000 tons; iron ore by 5.9 million tons; oil by 9.1 million tons; gas by 6.4 billion cubic meters; electric energy by 13.2 billion kilowatt hours; mineral fertilizers by 823,000 tons; metal cutting machine-tools by 5,300; chemical equipment by the sum of 14 million rubles; cement by 2.6 million tons; pre-fabricated reinforced concrete structures and parts by three million cubic meters. The production of non-ferrous metals also increased.

The production of the following also grew: leather footwear by 10 million pairs; knitted underwear and outer garments by 11 million; furniture by the sum of more than 83 million rubles; TV sets by 137,000; refrigerators by 69,000; washing machines by 170,000; whole-milk products by 346,000 tons; canned goods by 200 million tins, and many other consumer goods.

While the plan for industry as a whole has been successfully fulfilled, a number of enterprises did not reach the targets for gross output, for the production of certain types of goods, and for the qualitative indices. While production grew, the half-yearly plan for the output of some of the most important types of goods was not fulfilled, in particular, for steam and gas turbines, generators for steam and gas turbines, alternating-current electric motors, oil machinery, chemical equipment, weaving looms, trunk-line electric locomotives, trolleybuses, autograders, cement, bricks, window panes, refrigerators and washing machines, radio sets and radio-phonographs. The plan for the production of newsprint and printing paper was not fulfilled.

The industrial enterprises, jointly with research and design organizations, carried on work for the comprehensive mechanization and automation of production processes, the introduction of highly efficient technological processes, the creation and putting into production of new machines, equipment and instruments, and also the modernization of the existing technological equipment and the withdrawal of machines of obsolete design from production.

About 400 obsolete types of machines, equipment and instruments were withdrawn from production, and replaced by the best modern designs.

During the past six months, the machine-building enterprises of the economic councils modernized more than 35,000 units of metal-cutting, forge-press, foundry, woodworking and other technological equipment with the aim of ensuring further mechanization and automation of production, and increasing the speed and productivity of equipment.

At the same time, the industrial enterprises, research and design organizations did not fulfill a number of highly important targets of the plan for the introduction of mechanization, automation and advanced technology, for the creation and introduction into serial production of new machines, mechanisms, equipment and instruments. A number of enterprises did inadequate work on the modernization of equipment.

In all branches of the national economy technical progress has been achieved with the active participation of inventors and rationalizers who presented more than 2.1 million proposals during the first half-year. In this period more than 1.3 million inventions and rationalization proposals were introduced, resulting in savings of over 700 million rubles when calculated for a year.

The half-year plan for raising labor productivity in industry has been fulfilled. As compared with the first half of the past year, labor productivity increased by 3.5%, with a reduced working day for the workers and employees in all branches of industry. Taking the shorter working day into account, hourly labor productivity increased by 1.

Hourly labor productivity in some branches of industry increased as follows: in the ferrous metal industry by 5%; in the non-ferrous metals industry by 10%; in the coal industry by 4%; in the oil extraction industry by 12%; in the machine-building and metal-working industries by 14%; in the chemical industry 7%; in light industry by 11%; in the food industry by 14%.

The plan for reducing production costs in industry during the first half of 1961 has been fulfilled.

As a result of the growth in production and also of the further reduction of production costs, profit obtained from the national economy as a whole was approximately 5% greater than during the first half of the past year.

t many industrial enterprises and a number of omic councils did not fulfill the plan for raising productivity, the targets for reducing production costs, and the plan for accumulations.

II Agriculture

response to the decisions of the January Plenum the Central Committee of the Communist Party the zonal agricultural conferences, the workers socialist pledges to reach the targets of the n-Year Plan ahead of schedule and to increase cultural output in 1961.

the plan for spring sowing was overfulfilled. The under all crops, including winter crops (for 1961 harvest) totaled 204 million hectares.

ereals, including corn for grain of complete ness, were sown on 123 million hectares, or million hectares more than last year. The

under wheat grew by 2,773,000 hectares, un- buckwheat and millet by 785,000 hectares and r grain-leguminous crops by 1,118,000 hec- s as compared with 1960.

the area under sugar-beets for the production of r increased by 125,000 hectares, under sugar- s for fodder by 757,000 hectares, under cotton 3,000 hectares and under sunflowers by 38,000 are.

rn was sown on 25.6 million hectares, includ- .7 million hectares sown to corn for grain of lete ripeness, as against 5.1 million hectares ested last year. Fodder legumes were sown 33,000 hectares.

ore than 90% of all maize and sunflower at col- ve farms and state farms and almost 60% of n were sown by the square-cluster method.

ere was an increase in the number of head of only owned livestock, which is seen from the wing data:

	Head of live- stock at col- lective and state farms as of July 1, 1960 (in mil- lions of head)	In % of July 1, 1960
Cattle	60.0	105
Cows	19.0	110
Pigs	49.1	109
Sheep	127.6	104

compared with July 1, 1960, cattle at collect- arms and state farms increased by 2.8 million , with the increase in the number of cows being million; the number of pigs grew by 4 million sheep by 4.8 million. The number of poultry ased by 7%.

The number of personally owned livestock re- mained at last year's level.

The material and technical base of the collective farms and state farms was further strengthened. In the first half of this year agriculture received 87,000 tractors (154,000 in 15 horse-power units), 43,000 trucks, 31,000 self-propelled grain har- vester combines, 32,000 drill harvesters, 2,700 beet harvester combines, 11,500 silo harvesting com- bines, 1,700 cotton pickers, 6,600 tractor potato pickers, 48,000 tractor mowers, 13,800 tractor rakes, 5,900 threshed grain cleaners, 4,500 pick- up balers, 69,000 tractor plows, 68,000 tractor drills, 52,000 tractor cultivators and many other farm machines and implements. Agriculture re- ceived 6% more mineral fertilizer than in the first half of the last year.

III Transport

Fulfillment of the freightage plan by separate types of transport was as follows:

	First half of 1961	% of plan	In % of the first half of 1960
<u>Freight turnover</u> — in billion ton-kilometers			
railways	771.5	102	105
inland water- ways in general use	37.7	92	98
motor transport in general use	12.9	99.3	114
oil pipe-lines	28.4	103	115

Freightage — in million tons

railways	976.5	102	106
inland water- ways in general use	83.0	94	99
motor transport in general use	813.3	99.6	115
oil pipe-lines	69.0	102	112

The merchant marine fulfilled the plan for coast- ing freight turnover by 106% and for high seas freight turnover by 108%; in all types of marine transportation freight turnover increased by 25% and freightage by 5%.

Air passenger transportation went up by 28% over the corresponding period of last year and air freightage by 16%.

The extent of railway line switched over to elec- tric and diesel traction was increased. Freight turnover on railways using electric and diesel

traction registered a 26% increase in the first half of this year. The share of freight turnover on these railways reached 50% of total railway freight turnover.

Railway transport fulfilled or overfulfilled the plan for transportation of highly important freight — coal, oil and oil products, ore, ferrous metals and grains. The plan for transportation of timber was not fulfilled.

Assignments were reached with respect to the main indices of utilization of rolling stock, such as reduction of freight car turnover and increase of the weight of trains and their commercial speed; the plan for raising labor productivity and cutting transportation costs was overfulfilled.

There was an improvement in the utilization of vessels in the merchant marine and vehicles in the motor transport in general use.

At the same time, some railways failed to reach the planned assignments for the transportation of some vital goods and the utilization of rolling stock; at many enterprises excessive time was spent on loading and unloading. There was considerable demurrage in the merchant marine and inland waterways, while in motor transport vehicles stood idle for long periods or made empty runs.

IV

Capital Construction

The volume of capital investment drawn from resources allocated by the state plan amounted to 12.2 billion rubles, thereby registering a growth of 8% as compared with the first six months of last year. The six months' plan was fulfilled by 89%, including a 93% fulfillment in construction and assembly work.

Substantial investments of more than 1.5 billion rubles were made from the non-centralized resources of enterprises and economic organizations. Collective farms also made large capital investments.

As compared to the first six months of last year, capital investment grew as follows: in the chemical industry by 12%; in the ferrous and non-ferrous metals industry by 10%; in the oil and gas industry by 11%; in electric power station construction by 2%, including an 11% increase in the volume of construction of thermal electric power stations; in the engineering industry by 15%; in the building materials industry and the construction industry by 9%; in light industry by 16%; in agriculture by 19%; in railway transport by 4%.

Contracting organizations have carried out their plan of construction and assembly work by 96%, and expanded the volume of work (as compared to the first six months of last year) by 9%.

Industrial methods are being broadly applied in construction, the level of prefabrication in the construction of buildings has been raised, the volume

of work realized by home construction combines has been increased, and work continued for the further expansion and specialization of construction organizations. At the same time there still exist some serious shortcomings in the organization of construction work. Many economic councils, ministries, enterprises and economic organizations do not give due attention to a correct and more efficient utilization of resources allocated for capital construction; they permit a dispersion of the resources on a large number of projects. The plan for the utilization of fixed capital and production capacities are not being fulfilled. The machines and mechanisms available at construction sites are not being operated at full capacity. A number of construction organizations do not devote enough attention to the quality of construction work, and as a result some completed construction projects have to be altered.

As compared to the first six months of last year labor productivity grew by 4%, and in hour-rate work by 16%. In the same period the cost of building and assembly work fell by 0.5%. However, construction organizations have not fulfilled the plan for raising labor productivity and the target for the reduction of costs of construction and assembly work.

V.

Growth of the Material Welfare and the Cultural Level of the People

As compared to the first six months of last year the number of workers and employees in the Soviet national economy increased by 4.2 million.

The number of workers, engineer-technical workers and other specialists in industry, construction and transport and communications enterprises increased by 1.9 million, and in state farms by 1 million. The number of personnel in schools and other educational institutions, in research, cultural-enlightenment, medical and sanitarium-resort establishments increased by 800,000; the number of people engaged in trade, housing and municipal economy establishments increased by 500,000.

In conformity with the decisions of the 21st Congress of the Communist Party, the job was basically completed last year of adjusting the wages of workers and employees in industry; adjustments were also made in the wages of the workers of construction enterprises, of water and air transport and geological prospecting organizations, and of some other branches of the national economy. In the past six months have also seen adjustments introduced in the wages of workers and employees of state farms and other state agricultural enterprises, workers of railway and automobile transport and communications enterprises, workers of industrial enterprises of consumer cooperatives, and wo

ed in loading and unloading work. compared to the first six months of 1960, the ge cash earnings of workers and employees ased by 4%, including a 5% increase in the s of industrial and construction workers. This n wages was accompanied by the shortening working day.

ere was an increase in popular consumption fi- d by public funds. In the past six months the expended more than 13 billion rubles on pub- ucation, health services, social insurance, or leave payments and various other grants, at is 1 billion rubles more than in the first onths of 1960.

hese six months 31 million people went on annual leaves, granted every year with pay to orkers and employees.

ere was a continuing growth of the population's its in savings banks, whose funds as of July 1, reached almost 11.5 billion rubles.

he past six months the total volume of state cooperative trade amounted to 37.5 billion ru-

As compared to the first six months of last trade increased by 3.5% (in comparable pric- The retail trade plan for the first six months year has not been fulfilled. In the same per- e volume of trade in public catering establish- s went up by 5.1%, the six months' plan being ed by 101.5%.

odstuffs sold by consumer cooperatives, ac- ng to local market prices, amounted to 393 n rubles and increased by 3.5% in comparison he corresponding period of 1960. The follow- anges have taken place in the sale of certain of goods in state and cooperative trade:

Sold in the first six months of 1961, in % of the res- pective period of 1960 (in comparable prices).

and meat products	93
herring and other fish	
ducts	107
r	104
able oil	108
and dairy products	108
se	114
	117
	110
ctionery	103
	104
ables	114
	108
n textiles	91
n textiles	102
extiles	100
fabrics	101
es and undergarments	107

Sold in the first six months of 1961, in % of the res- pective period of 1960 (in comparable prices).

Knitted garments	103
Hosiery	107
Leather shoes	111
Porcelain, glazed earthenware and glassware	108
Furniture	120
Soap	102
Sewing machines	107
Domestic refrigerators	131
Domestic washing machines	127
Vacuum cleaners	112
Clocks and watches of all types	100
Motorcycles and scooters	109
Bicycles and motor bicycles	90
Radio receivers and radio-phonographs	98
Television sets	118
Motorcars	109

The population's demand for certain foodstuffs and other consumer goods was not met in full. Some economic councils and industrial enterprises did not pay due attention to improving the quality of goods produced, to improving their assortment, and as a result trading establishments were some- times supplied with goods which did not correspond to the demands of the population.

Foreign trade increased in the first six months of 1961 by 2% as compared with the first six months of 1960.

Further progress was made in the fields of pub- lic education, science and culture.

In accordance with the Law on Strengthening the Ties of the School with Life and Further Develop- ing the System of Public Education, work continued on the reorganization of general-education schools and of higher and specialized secondary educational establishments.

The number of students in general-education schools, plus the pupils of schools for working youth, rural youth and schools for adults, amount- ed to 36 million in the current academic year, as against 33 million in the past academic year. A total of 1 million people graduated from general- education schools and received graduation certi- ficates in 1961.

Work continued on expanding the system of board- ing schools. In the first six months of 1961, the country had a total of 1,990 boarding schools attend- ed by more than 590,000 children.

The graduation class of the higher and specialized secondary educational establishments will consist this year of 750,000 young specialists. This in- cludes 320,000 graduates of higher educational establishments.

There was a growth in the network of scientific institutions. At the beginning of 1961 the number amounted to 3,828, including 1,729 research institutes, their branches and sections. The total number of scientists in the country amounted to more than 354,000, of which 109,000 had doctorates or were candidates of science.

In the first six months of this year the country's film studios completed the production of 62 full-length feature films, documentaries and popular science films. The number of film projectors was more than 108,000 at the end of this six-month period, 10,000 more than in the corresponding period of last year. A total of 1.9 billion cinema-goers attended film showings, an increase of more than 100 million over the first six months of last year.

Housing and cultural-welfare construction was accomplished on a large scale. Housing with a total area of more than 15 million square meters was built with resources provided by the state plan. In addition, a large number of houses were built with

non-centralized resources. Greater numbers of general-education schools, hospitals, polyclinics and pre-school children's establishments were put into operation. However, the state plan for the first six months for dwelling houses, schools, hospitals, pre-school children's establishments and other cultural-welfare enterprises was not fulfilled.

The steady growth of the working people's welfare, the improvement of the public health system and medical service had a favorable influence on the growth of the country's population. According to preliminary data the Soviet Union's population as of July 1, 1961, amounted to 218 million.

The results of the first six months of 1961 are testimony to the successful fulfillment of the Seven-Year Plan targets, and of the further growth of the national economy and the welfare of the Soviet people.

S. STRUMILIN (CONTINUED FROM PAGE 57)

- (9) Karl Marx, Capital, Vol. I, 1954, p. 324.
- (10) Karl Marx, Theory of Surplus Value, Part I, Gospolitizdat, 1955, p. 377.
- (11) V. I. Lenin, Collected Works, Vol. 27, p. 189 (Our emphasis — S. S.). [Russian edition.]
- (12) Voprosy Ekonomiki, 1960, No. 5, p. 39.
- (13) ibid., p. 39.
- (14) ibid., p. 45.
- (15) Zemel'naia renta v sotsialisticheskome sel'skom khoziaistve, p. 31 (our emphasis — S. S.).
- (16) Kolkhozy, First All-Union Congress of Collective Farms, Knigsoiuz, 1929, p. 399.

- (17) Pravda, April 24, 1957.
- (18) Karl Marx, Capital, Vol. III, pp. 627-6.
- (19) ibid., p. 646.
- (20) Zemel'naia renta v sotsialisticheskome sel'skom khoziaistve, p. 28.
- (21) ibid., pp. 25-27.
- (22) cf. Marx's tables in Capital, Vol. III, pp. 699, 700-701.
- (23) V. I. Lenin, Collected Works, Vol. 5, p. 108. [Russian edition.]
- (24) Zemel'naia renta v sotsialisticheskome sel'skom khoziaistve, p. 25.

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